WORLDSOFTWARE®

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Invoice Formatting – Contract Billing

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JDEdwards®

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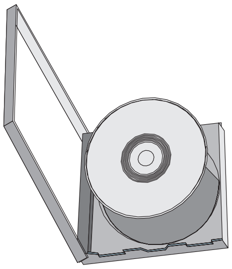
Where Do I Look?

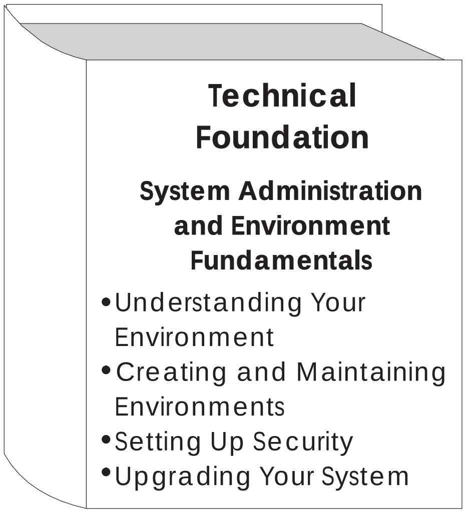
Online Help

- Program
- Form
- Field



CD–ROM Guides

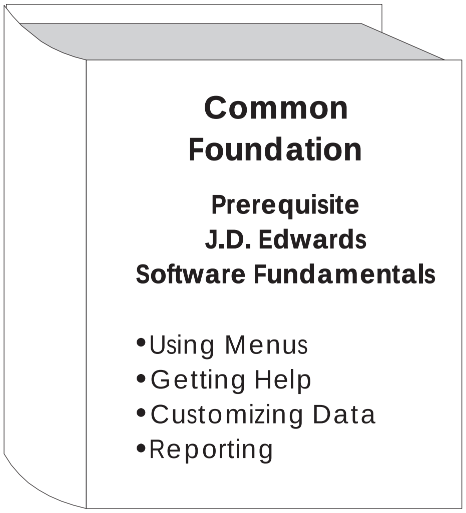
Guides



Technical Foundation

System Administration and Environment Fundamentals

- Understanding Your Environment
- Creating and Maintaining Environments
- Setting Up Security
- Upgrading Your System



Common Foundation

Prerequisite J.D. Edwards Software Fundamentals

- Using Menus
- Getting Help
- Customizing Data
- Reporting

Important Note for Students in Training Classes

This guide is a source book for online helps, training classes, and user reference. Training classes may not cover all the topics contained here.

Welcome

About this Guide

This guide provides overviews, illustrations, procedures, and examples for the current release of J.D. Edwards software. Forms (screens and windows) shown are only examples. If your company operates at a different software level, you might find discrepancies between what is shown in this guide and what you see on your screen.

This guide includes examples to help you understand how to use the system. You can access all of the information about a task using either the guide or the online help.

Before using this guide, you should have a fundamental understanding of the system, user defined codes, and category codes. You should also know how to:

- Use the menus
- Enter information in fields
- Add, change, and delete information
- Create and run report versions
- Access online documentation

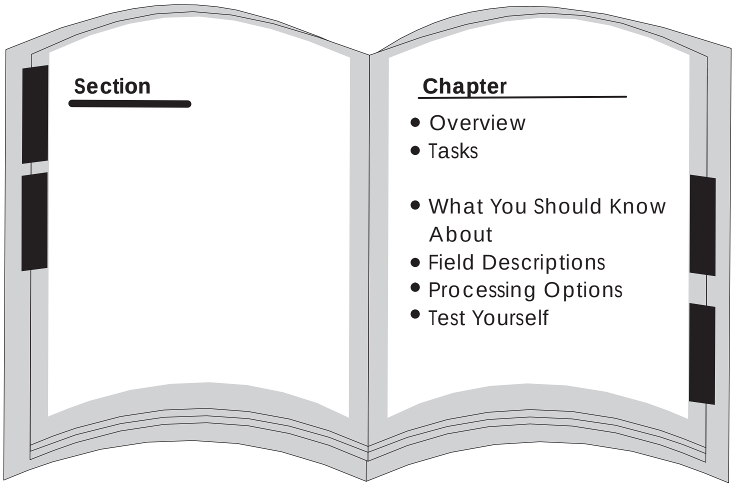
Audience

This guide is intended primarily for the following audiences:

- Users
- Classroom instructors
- Client Services personnel
- Consultants and implementation team members

Organization

This guide is divided into sections for each major function. Sections contain chapters for each task or group of related tasks. Each chapter contains the information you need to accomplish the task, run the program, or print the report. Chapters normally include an overview, form or report samples, and procedures.


Section
Chapter
Overview
Tasks
What You Should Know About
Field Descriptions
Processing Options
Test Yourself

When it is appropriate, chapters also might explain automatic accounting instructions, processing options, and warnings or error situations. Some chapters include self-tests for your use outside the classroom.

This guide has a detailed table of contents and an index to help you locate information quickly.

Conventions Used in this Guide

The following terms have specific meanings when used in this guide:

- *Form* refers to a screen or a window.
- *Table* generally means “file.”

We assume an “implied completion” at the end of a series of steps. That is, to complete the procedure described in the series of steps, either press Enter or click OK, except where noted.

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Invoice Formatting Overview

Objectives

- To understand the relationship between formats and invoices
- To understand how formats define an invoice

About Invoice Formatting

When you use Invoice Formatting to design invoices, you systematically build invoices in sections. The number of sections that you use depends on the complexity of your invoice.

The term *invoice layout* refers to the overall design of a printed invoice. The term *format* refers to a section of a printed invoice, such as the header, detail information, and total. You must define each format within an invoice layout to specify the type of information that prints on your invoice and the visual presentation of the information on the invoice.

You should design your invoice on paper first. Use your design to:

- Identify the different formats that you need to define
- Determine how each format fits into the invoice layout

An invoice layout typically includes the following formats:

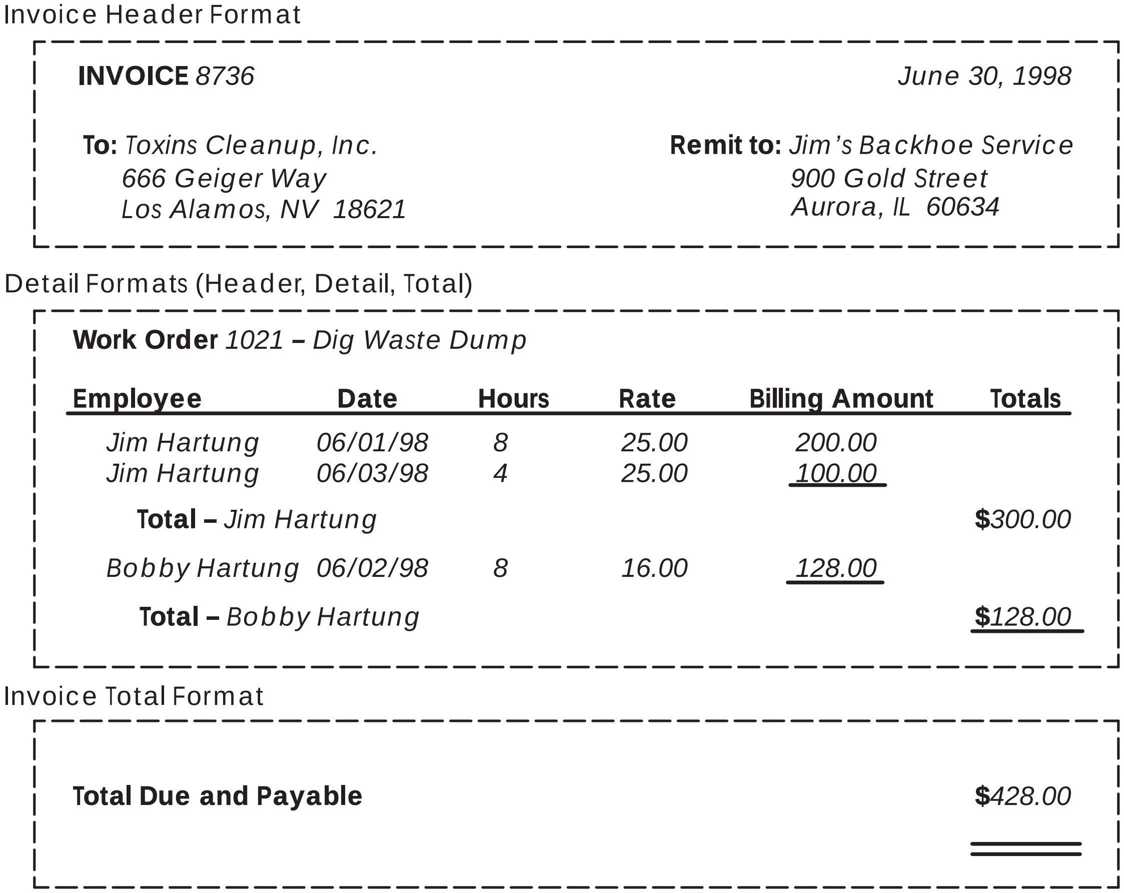
Header	Appears at the beginning of the first page of the invoice and might include the customer's name and address, remit-to information, the invoice number, and the date.
Alternate header	Appears at the beginning of subsequent pages of the invoice. The alternate header might include the invoice number, the date, the customer's name and address, and invoice page information, such as *Page 2 of 4*.
Detail information	The itemized charges on an invoice. Detail information can include summarized and detailed charges. A complex invoice might include multiple detail sections with subtotals.

Total	The total amount due and payable. The amount of the total is usually a computed value based on the detail information presented on the invoice.

You define formats to organize each section of information that prints on each customer invoice. A format can include variable information that you direct the system to retrieve from system tables and invariable information that you type directly on the format.

For example, you might type "To:" on a header format. You might then specify that the system prints the customer's name and address on the following lines of the format. You would not type the customer's name and address on the format, because that information is variable and changes from invoice to invoice. Instead, you define a series of codes to direct the system to the customer's name and address that are stored in the system tables.

The following diagram is a sample invoice that illustrates the different formats that you can define within an invoice. The italicized text represents variable information. Bold text represents invariable information.



Invoice Header Format

INVOICE *8736*

June 30, 1998

To: *Toxins Cleanup, Inc.*
666 Geiger Way
Los Alamos, NV 18621

Remit to: *Jim's Backhoe Service*
900 Gold Street
Aurora, IL 60634

Detail Formats (Header, Detail, Total)

Work Order *1021 – Dig Waste Dump*

Employee	**Date**	**Hours**	**Rate**	**Billing Amount**	**Totals**
Jim Hartung	*06/01/98*	*8*	*25.00*	*200.00*	
Jim Hartung	*06/03/98*	*4*	*25.00*	*100.00*	
Total – *Jim Hartung*					**$***300.00*
Bobby Hartung	*06/02/98*	*8*	*16.00*	*128.00*	
Total – *Bobby Hartung*					**$***128.00*

Invoice Total Format

Total Due and Payable **$***428.00*

Invoice Header

The invoice header prints on the first page of the invoice. Invoice headers might include:

- Invoice number and date
- Customer's name and address
- Remit-to information, such as the name and address of the company to which payment should be sent

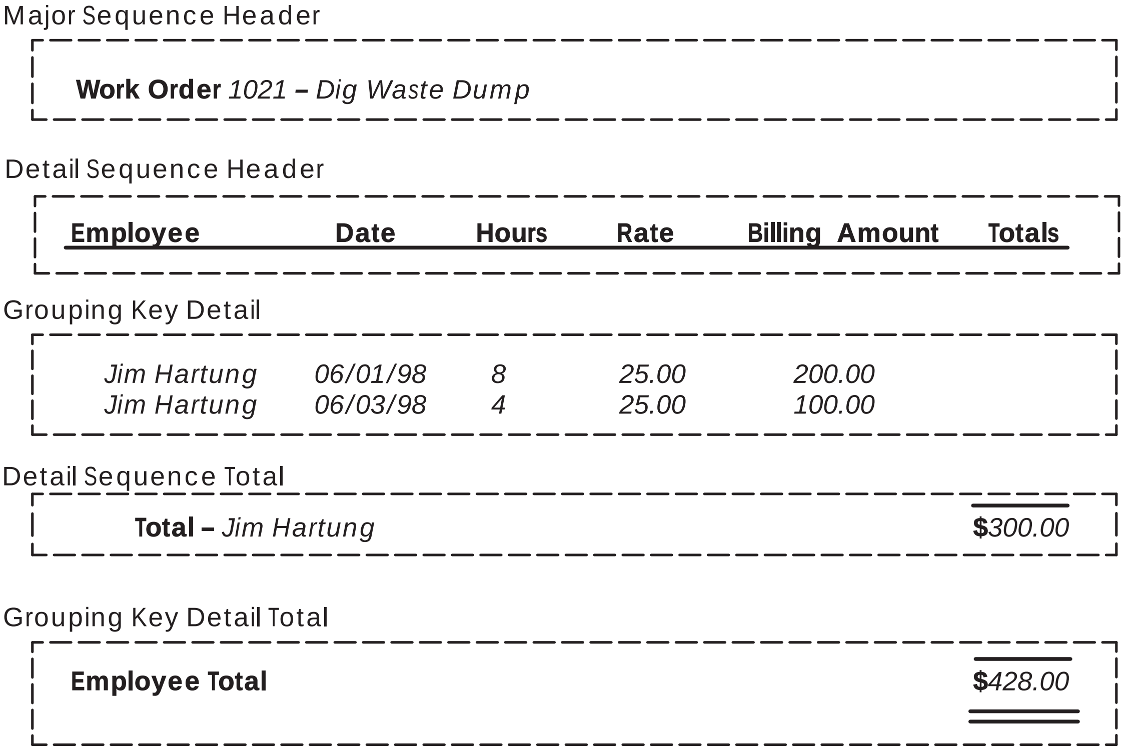
You can also design an alternate header for subsequent pages of an invoice. If you do not design a format for an alternate header, all subsequent pages of your invoice print without a header.

Detail Formats (Header, Detail, and Total)

You can define the following detail formats for the major sequence and each of the grouping keys:

- Major sequence header
    - Grouping key detail header
        - Detail sequence header
        - Grouping key detail
        - Detail sequence total
    - Grouping key detail total
- Major sequence total

The following diagram further illustrates the formats you can define within the detail formats (header, detail, and total) section of the sample invoice. The italicized text represents variable information. The bold text represents invariable information.



Major Sequence Header

Work Order *1021 – Dig Waste Dump*

Detail Sequence Header

Employee	**Date**	**Hours**	**Rate**	**Billing Amount**	**Totals**

Grouping Key Detail

Jim Hartung	*06/01/98*	*8*	*25.00*	*200.00*	
Jim Hartung	*06/03/98*	*4*	*25.00*	*100.00*	

Detail Sequence Total

Total – *Jim Hartung* **$***300.00*

Grouping Key Detail Total

Employee Total **$***428.00*

Invoice Total Format

The invoice total format prints at the end of the invoice. The invoice total format might include:

- Total invoice amount
- Text, such as Total Due and Payable
- Currency symbols and underscores
- Seasonal greeting or other information

Test Yourself: Invoice Formatting

1. True or False

   The information that you include on your invoices can be retrieved only from the Service Billing and Contract Billing systems.

2. A layout refers to:

   A. The overall design of a printed invoice
   B. A collection of formats for the printed invoice
   C. The detail for the printed invoice, such as Remit To information
   D. A and C
   E. A and B

3. List and give an example of the two types of information that can be included in a format.

   ____

   ____

4. True or False

   The Invoice Header prints on all pages of the invoice.

5. True or False

   Detail Formats are defined for the Major Sequence and Grouping Keys.

6. True or False

   You can define Detail Formats for headers, details, and totals.

The answers are in *Appendix A*.

Invoice Formatting for Contract Billing

Objectives

- To understand invoice layouts and formats
- To create layouts and formats for printed invoices
- To understand retrieval references
- To access variable information for an invoice from multiple sources

About Invoice Formatting for Contract Billing

You can use invoice formatting to design printed invoices that meet the specific information requirements of your business and customers. You can design a wide variety of invoices.

For example, an invoice might include only summarized transaction information, such as a single line description for the total for all employee hours. A more complex invoice might also show the total for all employee hours, but present the information in detail to show employee overtime hours, part-time hours, and so on, with a subtotal for each new group of transactions.

The information you choose to print on the invoice can be retrieved from various systems, such as Contract Billing, Address Book, and Work Orders.

Before you design printed invoices, you should have a clear idea about how you want the final invoice to appear. Consider the types of information that you want to include on the invoice, the visual appearance of the information on the invoice, and where that information resides in the system. Then, you can design invoice layouts for your customer invoices.

Invoice formatting for Contract Billing consists of the following tasks:

- ☐ Working with invoice layouts
- ☐ Working with formats
- ☐ Defining formats
- ☐ Defining custom retrieval codes

Work with Invoice Layouts

Working with Invoice Layouts

The term *layout* refers to the overall design of a printed invoice. A layout consists of multiple formats. You define formats to organize each section of information that prints on each customer invoice. Before you can define the formats that you want the system to apply to the invoices that you generate on the system, you must define a layout structure to which you can attach the individual formats. You can then identify a series of formats that make up an entire layout by the associated layout structure name.

When you define a layout structure, you determine how the system sequences and groups the billing information that you want to print on the invoice. Invoice Formatting includes the most frequently used data items that you can use to order the billing information on your invoices. You can further customize how billing information prints on invoices by adding invoice format data items to the data items already listed for the system.

After you define a layout structure for each layout that you want to design, you can assign the layouts to the invoices that you generate in the system.

Working with invoice layouts consists of the following tasks:

- ☐ Defining a layout structure
- ☐ Adding invoice format data items
- ☐ Assigning invoice layouts

Defining a Layout Structure

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Revisions

The first step in working with invoice layouts is to define the structure of each layout that you want to design for your printed invoices. You use the layout structure to:

- Create the formats that make up a layout

- Sequence and group the billing transactions within the layout
- Determine the layout that you want to print for each invoice that you generate in the system

You define a layout structure by first assigning it a user-designated invoice format code and invoice type. You assign invoice format codes and invoice types to layout structures so you can create the related header, detail, and total formats that make up your invoice layout. Typically, you define at least one invoice format code for a general invoice layout that meets the needs of the majority of your customers. You can also define invoice format codes for the customized invoice layouts you design for specific customers.

You also use the layout structure to define how you want the system to sequence and group the billing information on the printed invoice. To do this, you must determine how you want to group and sequence workfile transactions on the invoice. Generally, the grouping and sequencing that you use to print differs from the grouping and sequencing that you use to generate the pay items that make up each invoice. To sequence and group billing information on a printed invoice, you must define the following:

- Major sequence
- Grouping key
- Grouping key ranges
- Detail sequences for each grouping key range

Major Sequence

You must specify at least one data item in the major sequence for every invoice layout that you define. The major sequence controls the grouping and sequencing for the overall invoice layout.

The system uses the first data item in the major sequence to determine when one invoice ends and the next begins. Generally, you use the last data item to identify how billing information is grouped on the printed invoice. If you do not specify a data item in the major sequence, you will be unable to use the layout to print invoices.

Grouping Key

You define a grouping key to control how the system groups individual billing transactions on a printed invoice. The grouping key is generally the last data item that you specify for the major sequence.

Grouping Key Ranges

You must assign grouping key ranges to control how the system determines the sequence in which to print billing transaction groups on invoices based on your grouping key. For example, if the grouping key for the layout is Object Account, the grouping key ranges that you assign for the layout must refer to valid object account numbers that you have set up in your chart of accounts.

Detail Sequences for Grouping Key Ranges

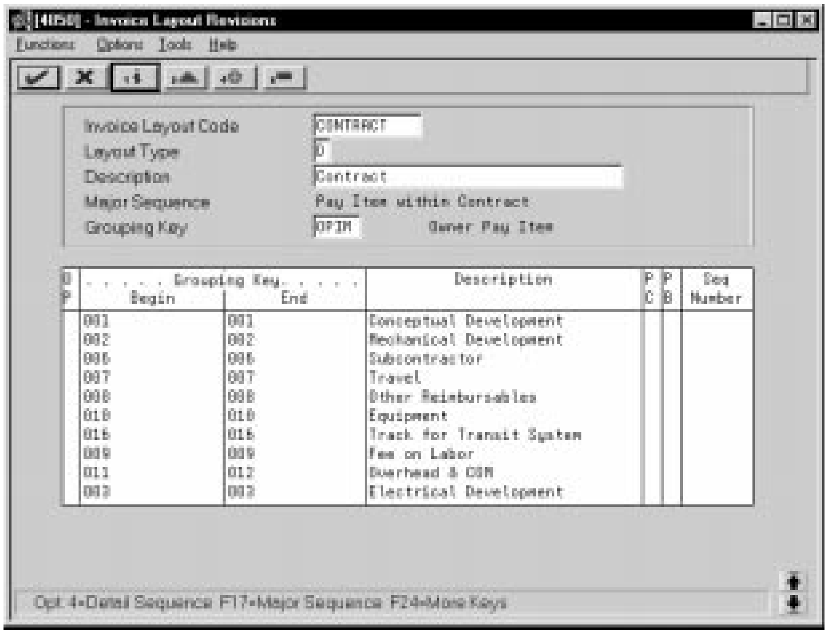
You can define a detail sequence for each of the grouping key ranges that you include in a layout structure. The detail sequence that you specify further defines the grouping key range you set up for the invoice layout by indicating where you want divisions between groups of transactions and the level of detail you want to print for the transaction groups.

For example, if your layout consists of grouping key ranges for labor and materials, you can assign each range a unique detail sequence. The detail sequence you define for labor might include employee name and date worked. The detail sequence you set up for materials might be grouped by supplier name, invoice number, and date.

You must assign a sequence number to at least one data item in a detail sequence. If you assign more than one data item to the detail sequence, the system uses the last item of the detail sequence as the indicator to print the billing detail transaction line. For example, to summarize charges on an invoice by supplier, you define the data item for supplier number as the last line in the sequence definition.

▶ To define a layout structure

On Invoice Layout Revisions

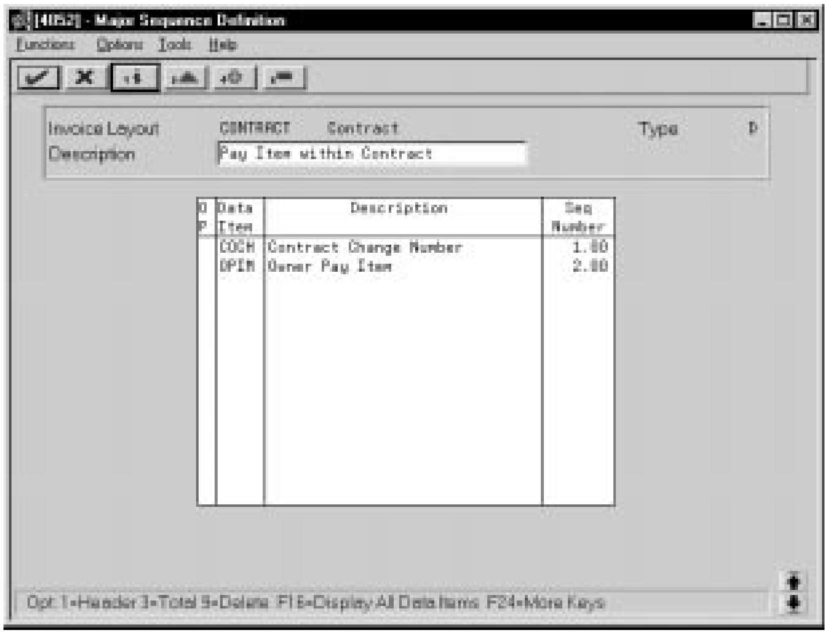


Invoice Layout Code: CONTRACT
Layout Type: D
Description: Contract
Major Sequence: Pay Item within Contract
Grouping Key: OPIM Owner Pay Item

O P	Grouping Key Begin	Grouping Key End	Description	P C	P B	Seq Number
	001	001	Conceptual Development			
	002	002	Mechanical Development			
	006	006	Subcontractor			
	007	007	Travel			
	008	008	Other Reimbursables			
	010	010	Equipment			
	016	016	Track for Transit System			
	009	009	Fee on Labor			
	011	012	Overhead & COM			
	003	003	Electrical Development			

Opt 4=Detail Sequence F17=Major Sequence F24=More Keys

1. Complete the following fields:
    - Invoice Layout Code
    - Invoice Type
    - Description
2. Choose Major Sequence.



Invoice Layout CONTRACT Contract Type D
Description Pay Item within Contract

O P	Data Item	Description	Seq Number
	COCH	Contract Change Number	1.00
	OPIM	Owner Pay Item	2.00

Opt: 1=Header 3=Total 9=Delete F16=Display All Data Items F24=More Keys

3. On Major Sequence Definition, choose Display All Data Items to see a complete list of the available data items.
4. To define the major sequence, complete the following field:
    - Sequence Number
5. Use the Add action.
6. Choose Exit Program.
7. On Invoice Layout Revisions, complete the following fields to assign a grouping key and grouping key ranges to the layout:
    - Grouping Key
    - Grouping Key Begin
    - Grouping Key End
    - Description
8. To print component and burden information on the invoice, complete the following optional fields:
    - Print Component Control
    - Print Burden Control

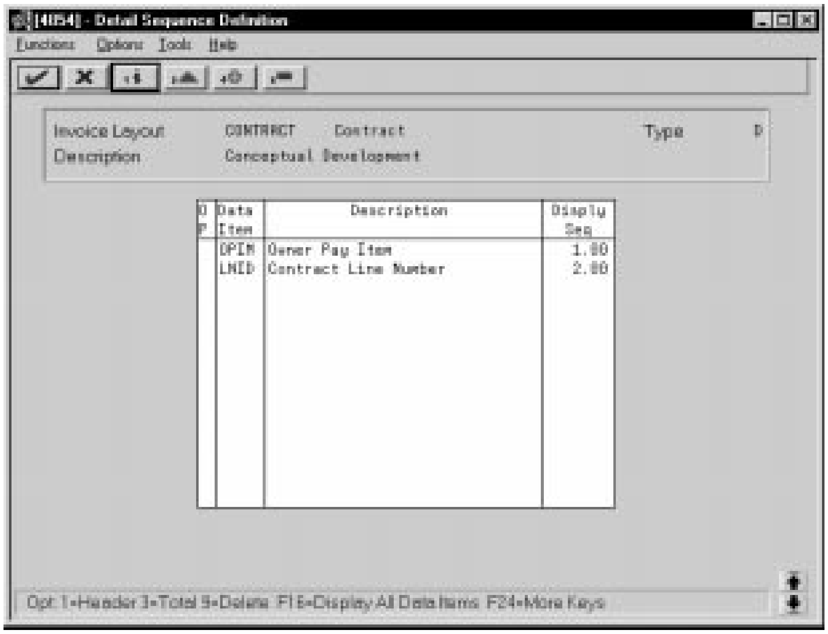
- Sequence Number

9. Use the Add action.

   The system clears the form.

10. To locate the layout, complete the following fields:
    - Invoice Layout Code
    - Invoice Type
11. Use the Inquire action.
12. Choose Detail Sequence for the first grouping key range.

    You must define a detail sequence for each grouping key range of transactions that you want to print on the invoice.



Invoice Layout CONTRACT Contract
Type D
Description Conceptual Development

O P	Data Item	Description	Disply Seq
	OPIM	Owner Pay Item	1.00
	LNID	Contract Line Number	2.00

Opt: 1=Header 3=Total 9=Delete F16=Display All Data Items F24=More Keys

13. On Detail Sequence Definition, choose Display All Data Items.
14. Complete the following field for the data items you want to include in the sequence:
    - Display Sequence
15. Use the Add action.

    The system clears the form.

16. Choose Exit Program.
17. Complete steps 11 through 15 until you define a detail sequence for each grouping key range on the Invoice Layout Revisions form.

Field	Explanation
Invoice Format Code	A code that uniquely identifies a series of formats and determines the overall layout of the invoice.
Invoice Type	A user defined, alphanumeric code that identifies different versions of the same invoice layout. For example, you might use the codes D and F to distinguish draft invoice layouts from final invoice layouts.
Grouping Key	You use this code to indicate the lowest level of detail that you want to print on an invoice. The code for the Grouping Key represents a field in the Billing Workfile and controls the selection of information for the detail level of the format layout. The system compares the values in the Grouping Key ranges that you define with the value in this field for each Billing Workfile transaction to determine whether the transaction should be included in the format that you create for this level of the invoice. For example, OBJ is the field for the object account. If you use OBJ as the Grouping Key for a layout, the system groups all billing transaction details on the invoice by object account number, depending on the grouping key range that you specify for the layout.
Seq Number	A number that the system uses to sequence information. . . . . *Form-specific information* . . . . A number that identifies the order in which the grouping key ranges display. This number does not determine the order in which the grouping key ranges actually print on the invoice.
Grouping Key Begin	A beginning value for a range within the Grouping Key. The system uses this range to select transactions it assigns to the detail level format for the invoice. If you leave this field blank, the system includes all values less than or equal to the Group End value.
End	An ending value for a range within the Grouping Key. The system uses this range to select transactions it assigns to the detail level format for the invoice. If you leave this field blank, the system includes all values greater than or equal to the Group Begin value.

Field	Explanation
Print Burden	A code that indicates whether burden transactions print independently or are always included within the amount of the associated labor transaction. Valid values are: blank DO NOT print burden transactions separately. Always roll burden amounts into the amounts of the associated labor transaction. 1 Print burden transactions independently, depending on the sequencing and summarization defined for the invoice format.
Print Components	A code that identifies whether the system prints markup components independently or always includes the markup components within the amount of the associated base workfile transaction. Valid values are: blank Print markup components independently, depending on the sequencing and summarization defined for the invoice format. 1 DO NOT print markup components separately. Always roll markup components into the amounts of the associated base workfile transaction. (When you choose this value, the only way that you can access information related to markup components is by using the third parameter on the AMOUNT retrieval code.)

What You Should Know About

Changing sequence numbers of data items	To change the sequence of data items in a major sequence or detail sequence, you can: • Enter a new sequence number in place of an existing number • Clear the existing sequence number
Deleting sequenced data items	To remove all of the data items in a major or detail sequence, choose Delete for any of the data items. Then, use the Change action. The system removes all the sequence numbers for the data items.
Deleting grouping key ranges	To remove all of the ranges for a grouping key, choose Delete for any of the ranges. Then, use the Change action. The system removes the ranges.

Defining overlapping or repeating grouping key ranges

To print a summarized billing transaction line followed by details of the transactions, you can define grouping key ranges that include overlapping or repeating values for the grouping keys.

For example, you might print a summary of the labor charges followed by the details of the burden. To do this, you define a range of grouping keys for your labor accounts as the summary of labor expenses. Then, you define another grouping key range using a subset of the labor accounts for the range of the burden expenses. (In this example, you also need to complete the Print Burden field to print burden on the invoice.)

Assigning sequence numbers to grouping key ranges

You cannot change the print sequence for a layout by adding or reassigning sequence numbers after you define a grouping key range. The changes you make to sequence numbers on the Invoice Layout Revisions form change only the order of the grouping key display on the form.

For example, the original grouping keys and their related detail formats were defined in the following object account order:

- Labor
- Uniforms
- Equipment
- Licenses

If you resequence the grouping key ranges so that they are in alphabetical order, the display becomes:

- Equipment
- Labor
- Licenses
- Uniforms

When you print the invoice, the first printed line on the invoice shows the detail formats defined for labor because labor is associated with the first physical line on the form.

Exercises

See the exercises for this chapter.

Adding Invoice Format Data Items

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Data Items

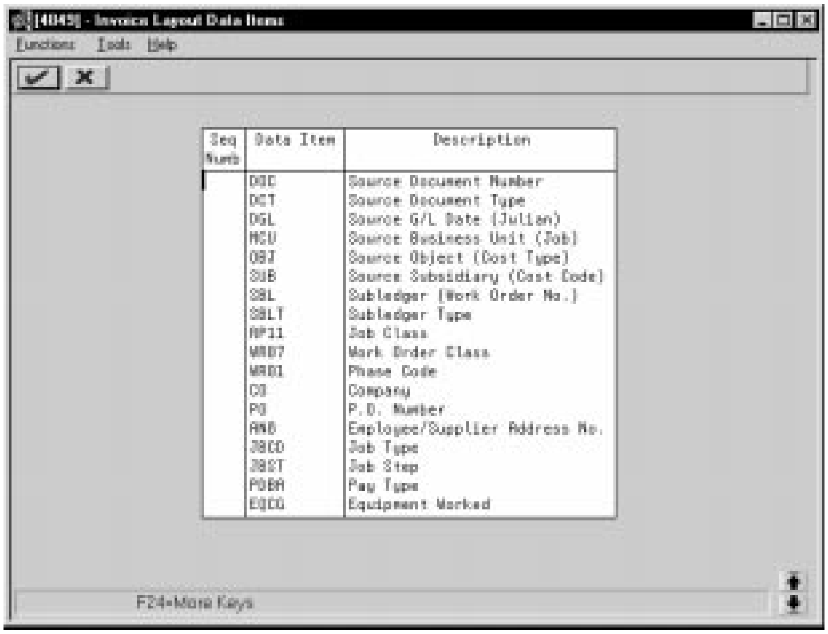
You use data items to sequence and summarize billing information within an invoice. J.D. Edwards includes only the most frequently used invoice format data items in the Available Data Items table (F4849). If you want to sequence your invoices by a data item that is not included in the Available Data Items table, you can add data items from the Billing Workfile (F4812) to the table at any time.

For example, the data item for the supplier's invoice number is not a frequently used invoice format data item. On a given date, you might make two separate purchases from the same supplier so that you can complete work for your customer. The supplier issues two different invoices for the purchases.

To print the billing information for each supplier invoice on a separate line of the invoice that you send to your customer, you use the data item that stores the supplier's invoice number. After you add the data item to the Available Data Items table, you can use the data item to define your major or detail sequence, depending on your invoice layout.

▶ To add invoice format data items

On Invoice Layout Data Items



Seq Numb	Data Item	Description
	DOC	Source Document Number
	DCT	Source Document Type
	DGL	Source G/L Date (Julian)
	MCU	Source Business Unit (Job)
	OBJ	Source Object (Cost Type)
	SUB	Source Subsidiary (Cost Code)
	SBL	Subledger (Work Order No.)
	SBLT	Subledger Type
	RP11	Job Class
	WR07	Work Order Class
	WR01	Phase Code
	CO	Company
	PO	P.O. Number
	AN8	Employee/Supplier Address No.
	JBCD	Job Type
	JBST	Job Step
	PDBA	Pay Type
	EQCG	Equipment Worked

1. Locate a blank line.

Do not type over existing data items on the Invoice Layout Data Items form. Typing over an existing data item deletes it from the Available Data Items table and can cause unpredictable results.

2. Complete the following fields:
   - Data Item
   - Description
3. Complete the following optional field:
   - Sequence Number

Field	**Explanation**
Seq Numb	A number that provides an audit trail for the billing detail transactions related to the same billing control ID. The system initially assigns 001 as the sequence number (SBSQ) of the original transaction. If you split a transaction, the system increments the number to the next available sequence numbers (SBSQ) for the resulting transactions. . . . . *Form-specific information* . . . . On this form, the sequence number determines the order in which the data items will appear on the Major Sequence Definition form and the Detail Sequence Definition form. (Choose Display All Data Items on those forms to review the complete data sequence of valid data items.) NOTE: The system displays blank data items before those with sequence numbers. For example, if you enter a sequence number of 1 for DOC, all of the blank data items will be listed with the DOC data item at the end of the list.
Data Item	Data items represent the fields that store information throughout J.D. Edwards software. You use data items to define the sequence of information on an invoice. Specific fields in the Billing Workfile are designated as valid data items that you can include on an invoice.

See Also

- *Appendix D – Field Derivations for the F4812* for a list of common data items that you can use when you create invoice layouts.

Exercises

See the exercises for this chapter.

Assigning Invoice Layouts

When you assign invoice layouts, you link invoice layouts to invoice information that you generate on the system. The link you establish determines which layouts the system uses to print the invoices. This is especially helpful if you have customers with unique invoice requirements and you create a variety of layouts to accommodate these needs. You can print all of these invoices in the same batch, regardless of differences between invoice layout designs, provided all layouts contain the same value for the invoice type as the value specified in the processing options for the Print Invoices program.

If you create a standard layout, you can set up a cross-reference to globally assign the layout to all of your customers or to customers that meet specific criteria. The cross-reference you set up is the default that the system uses for printing invoices. You can override the default by assigning a specific layout to a contract.

You must assign an invoice layout to every invoice you plan to print. If the invoice you want to print does not meet the criteria you set up for global layout assignments, and you have not assigned a specific invoice format code to an invoice, the invoice will not print.

Assigning invoice layouts consists of the following tasks:

☐ Assigning layouts globally

☐ Assigning invoice format codes to contracts

Before You Begin

☐ Define layout structures. See *Defining a Layout Structure*.

Assigning Layouts Globally

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Revisions

You can globally assign the invoice format code that identifies the layout you want to use when you print invoices for specific customers. Assigning layouts globally is helpful if you want to use the same invoice layout design for:

- All customers
- A specific group of customers

This saves time, especially if you print a large number of invoices.

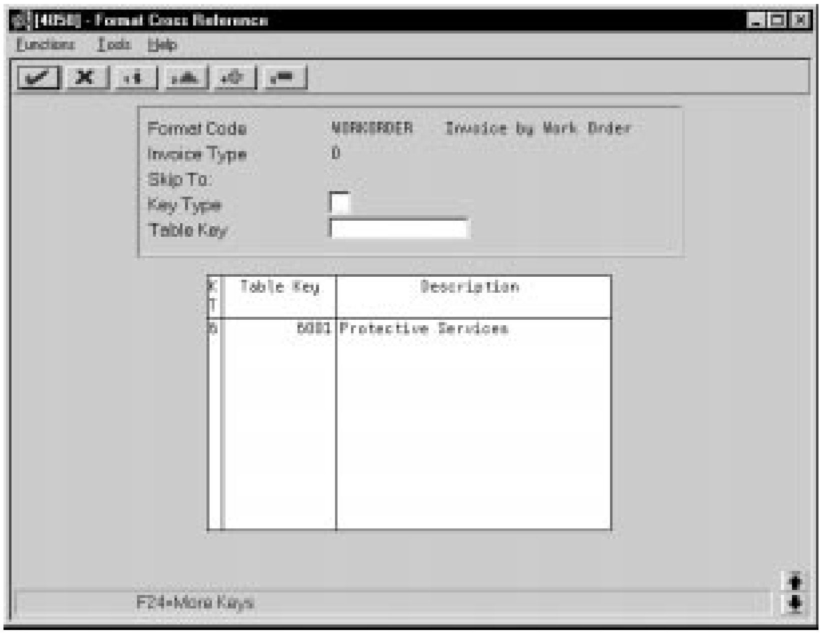
When you print invoices, the system uses the cross-reference information you set up to identify the correct design you want to use for printing each invoice within a batch of generated invoices. The cross-reference information that you assign to a layout consists of key type and table key combinations that the system uses to match with the values in the billing transactions that make up individual invoices.

For example, you might assign a key type and table key combination for a layout that indicates a specific customer number. When you print invoices, the system matches the key type and table key combination for the layout to the invoice information that includes the specific customer number.

▶ To assign layouts globally

On Invoice Layout Revisions

1. To locate the layout you want to assign, complete the following fields:
    - Invoice Layout Code
    - Invoice Type
2. Use the Inquire action.
3. Choose Format Cross Reference.


[4858] - Format Cross Reference
Functions
Tools
Help
F24=More Keys

Format Code WORKORDER Invoice by Work Order
Invoice Type 0
Skip To:
Key Type
Table Key

K T	Table Key	Description
6	6001	Protective Services

4. On Format Cross Reference, complete the following fields:
    - Key Type
    - Table Key

    After you enter the information, the system updates the Format Cross Reference table (F4858).

Field	**Explanation**
Key Type	A code that the system uses in combination with the table key to locate and edit source and billing detail transactions against the various tables in the Service Billing and Contract Billing systems. Valid key type codes and related tables are: 1 Work order number – Work Order Master (F4801) 2 Work order class – User Defined Code (00/W7) 3 Contract number – Contract Master (F5201) 4 Parent contract number – Contract Master (F5201) 5 Customer – Address Book Master (F0101) 6 Job or business unit – Business Unit Master (F0006) 7 Job class – User Defined Code (00/11) 8 Company – Company Constants (F0010) 9 Default When you select a key type, use the following guidelines: • You cannot use the key types for contract number (3) or parent contract number (4) with the Tax Derivation and G/L Offset & Retainage tables. • You cannot use the key type for company (8) with the G/L Offset and Retainage tables. • You can use the default key type (9) with only the Account Derivation and Cost Plus Markup tables. . . . . *Form-specific information* . . . . The Key Type field you specify determines the type of transactions that the system assigns to this format code and invoice type. Use the Skip To: Key Type field to limit an inquiry if many key values have been entered for a format series. This field brings the value specified to the top of the display.

Field	Explanation
Table Key	A value that the system uses in combination with the key type to locate and edit source and billing detail transactions against the various tables in the Service Billing and Contract Billing systems. The value you enter in the Key Type field determines the valid values for the Table Key field. For example, if you specify the key type for work order number (1), you must enter a valid work order number from the Work Order Master (F4801) in the Table Key field. The key type you specify also controls the search window that you access from the Table Key field when you use field sensitive help. For example, when you select Key Type 1, you can use the field sensitive help for the Table Key field to access the Work Order Search window. With Key Type 2, you access the User Defined Codes window for work order class. . . . . *Form-specific information* . . . . Use the Table Key field to limit the transactions that the system assigns to this format code and invoice type. You can use the Skip To: Table Key field to limit an inquiry if many key values have been entered for a format series. This field brings the value specified to the top of the display.

What You Should Know About

Assigning keys to multiple layouts	You can assign the same key type and table key to multiple layouts if the layouts have the same invoice format code, but different invoice types.

Exercises

See the exercises for this chapter.

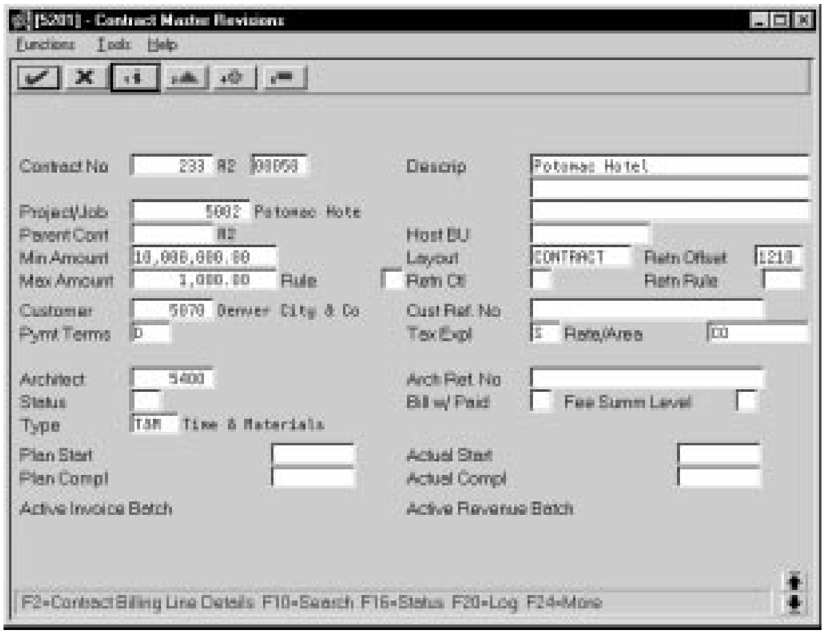
Assigning Invoice Format Codes to Contracts

From the Contract Billing Processing menu (G52), choose Contract Master Revisions.

If you use the Contract Billing system, you can assign an invoice format code for a specific layout directly to your contracts without assigning layouts globally. The layout you assign directly to a contract overrides any cross-reference information you set up on the Format Cross Reference form.

▶ To assign invoice format codes contracts

On Contract Master Revisions


[5201] - Contract Master Revisions
Functions
Tools
Help
Host BU
Retn Ctl
Retn Rule
Rule
Cust Ref. No
Status
Arch Ref. No
Bill w/ Paid
Fee Summ Level
Plan Start
Plan Compl
Actual Start
Actual Compl
Active Invoice Batch
Active Revenue Batch
F2=Contract Billing Line Details F10=Search F16=Status F20=Log F24=More

Contract No 233 R2 00050
Descrip Potomac Hotel
Project/Job 5002 Potomac Hote
Parent Cont R2
Min Amount 10,000,000.00
Max Amount 1,000.00
Layout CONTRACT
Retn Offset 1210
Customer 5070 Denver City & Co
Pymt Terms D
Tax Expl S Rate/Area CO
Architect 5400
Type T&M Time & Materials

1. To locate a contract master, complete the following field:
   - Contract Number
2. Choose Field Sensitive Help for the following field:
   - Layout
3. On Invoice Format Selection, choose Return with Value for the invoice format code of the layout you want to assign to the contract.
4. On Contract Master Revisions, use the Change action.

Exercises

See the exercises for this chapter.

Work with Formats

Working with Formats

When you design the layout for a printed invoice, you must determine the information that you want to print on the invoice. You should design your invoice on paper before you begin. For example, you might want to use a preprinted invoice as a model to help you plan:

- The types of headings to print on the invoice
- Where subtotals will be calculated and printed on the invoice
- Billing transaction detail requirements
- How to group billing details on the invoice

After you have determined the appearance for the printed invoice, you can define the specific formats within the layout to accommodate that information. The series of formats that you define for a layout design are grouped in the system by a user-designated invoice format code and invoice type.

You can review the format definitions that already exist on your system. If you want to use an existing format definition, you can copy the definition to a format in your layout. After you copy a format, you can modify it to suit your needs.

Working with formats includes the following tasks:

☐ Reviewing format definition forms

☐ Copying formats

Reviewing Format Definition Forms

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Revisions

After you define a layout structure, the system assigns each invoice format code and invoice type combination a total of 10 different format types. You can use any of the format types to define formats. You define formats by placing retrieval references and invariable information on format definition forms. Your placement of retrieval references and invariable information within a specific format definition form determines the overall appearance and organization of information on your printed invoices.

You can review the following format definition forms for the format types associated with a layout structure:

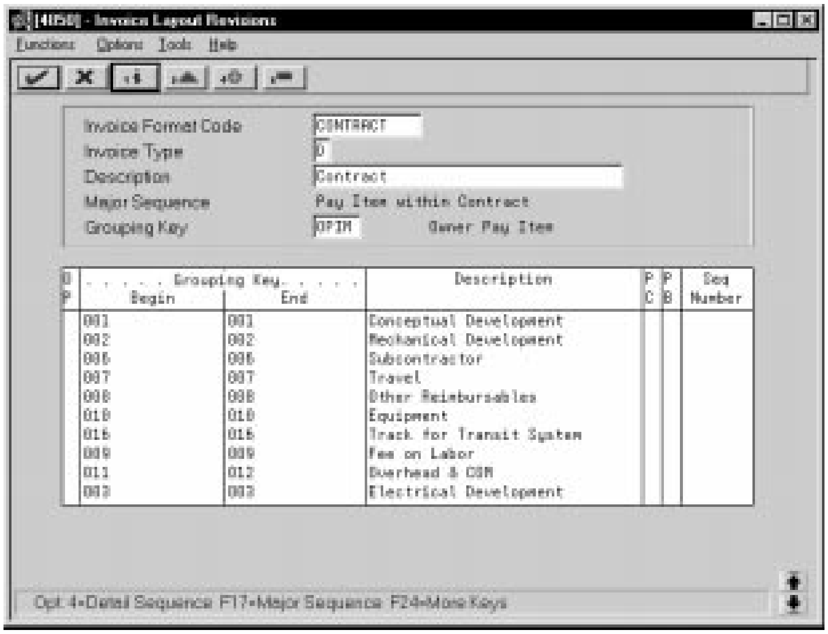
Five heading formats	Overall heading Overall alternate heading Major sequence heading Detail sequence heading Detail heading (for grouping key range)
Four totals formats	Overall total Total by detail (for grouping key range) Major sequence total Detail sequence total
One detail format	Detail detail (for grouping key range)

Before You Begin

- ☐ Define layout structures. See *Defining a Layout Structure.*

To review format definition forms

On Invoice Layout Revisions

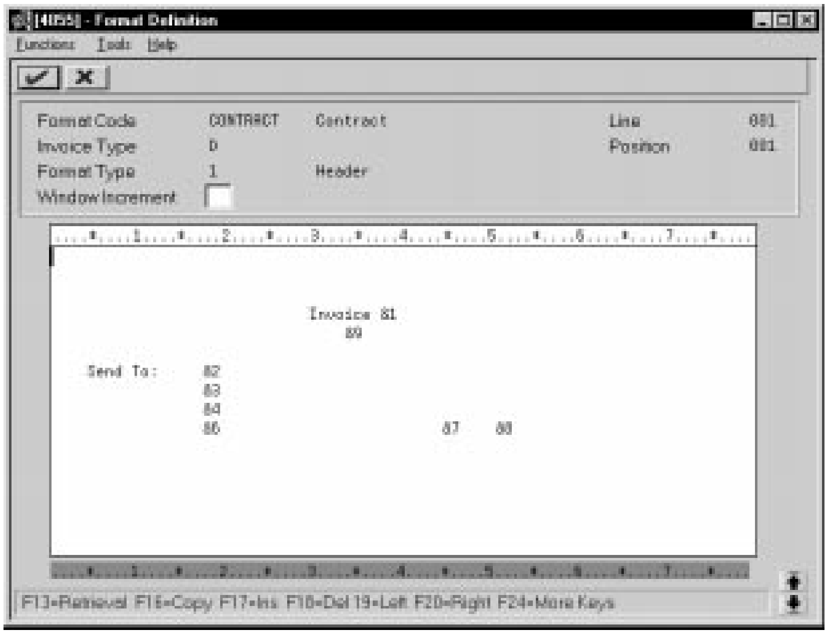

[4050] - Invoice Layout Revisions
Functions
Options
Tools
Help
Opt 4=Detail Sequence F17=Major Sequence F24=More Keys

Invoice Format Code: CONTRACT
Invoice Type: 0
Description: Contract
Major Sequence: Pay Item within Contract
Grouping Key: OPIM Owner Pay Item

O P	Grouping Key Begin	Grouping Key End	Description	P C	P B	Seq Number
	001	001	Conceptual Development			
	002	002	Mechanical Development			
	006	006	Subcontractor			
	007	007	Travel			
	008	008	Other Reimbursables			
	010	010	Equipment			
	016	016	Track for Transit System			
	009	009	Fee on Labor			
	011	012	Overhead & COM			
	003	003	Electrical Development			

1. To locate a layout structure, complete the following fields:
   - Invoice Layout Code
   - Format Type
2. Use the Inquire action.
3. Choose any of the following functions to review a specific format definition form for the layout structure:
   - Header Format Definition
   - Alternate Header Format Definition
   - Total Format Definition

The following example shows the Format Definition form for the header of the layout structure.


[41055] - Format Definition
Functions
Tools
Help
✓
✗
F13=Retrieval F16=Copy F17=Ins F18=Del 19=Left F20=Right F24=More Keys

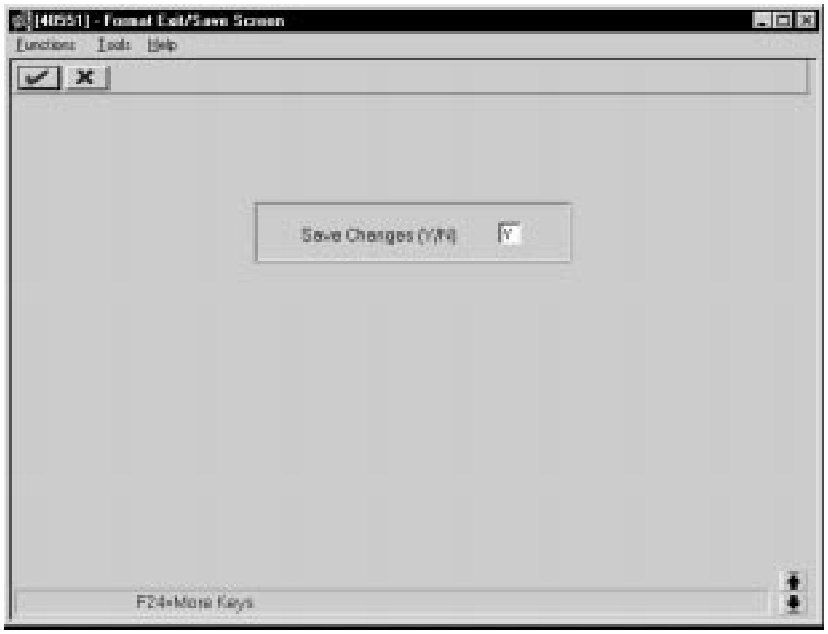
Format Code CONTRACT Contract
Invoice Type D
Format Type 1 Header
Window Increment ☐
Line 001
Position 001

```
                 Invoice 01
                    09

 Send To:    02
             03
             04
             05                   07    08
```

4. Choose Exit Program to return to Invoice Layout Revisions.

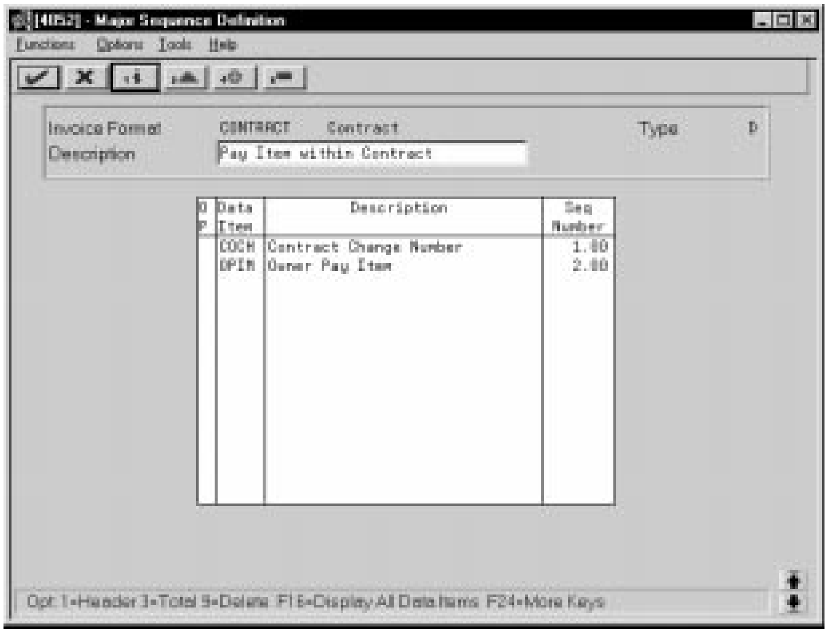
   The system displays a message prompting you to save any changes you made to the Format Definition form.


[41551] - Format Exit/Save Screen
Functions
Tools
Help
✓
✗
F24=More Keys

Save Changes (Y/N) Y

5. Complete the following field:
   - Save Changes (Y/N)

6. On Invoice Layout Revisions, choose Major Sequence.

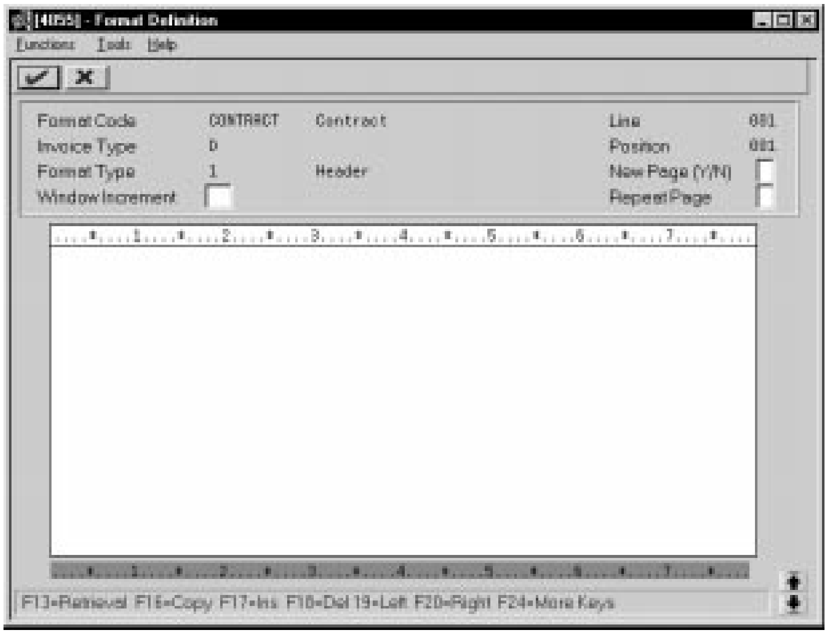

[41052] - Major Sequence Definition
Functions
Options
Tools
Help
Opt: 1=Header 3=Total 9=Delete F16=Display All Data Items F24=More Keys

Invoice Format CONTRACT Contract
Type D
Description Pay Item within Contract

O P	Data Item	Description	Seq Number
	COCH	Contract Change Number	1.00
	OPIM	Owner Pay Item	2.00

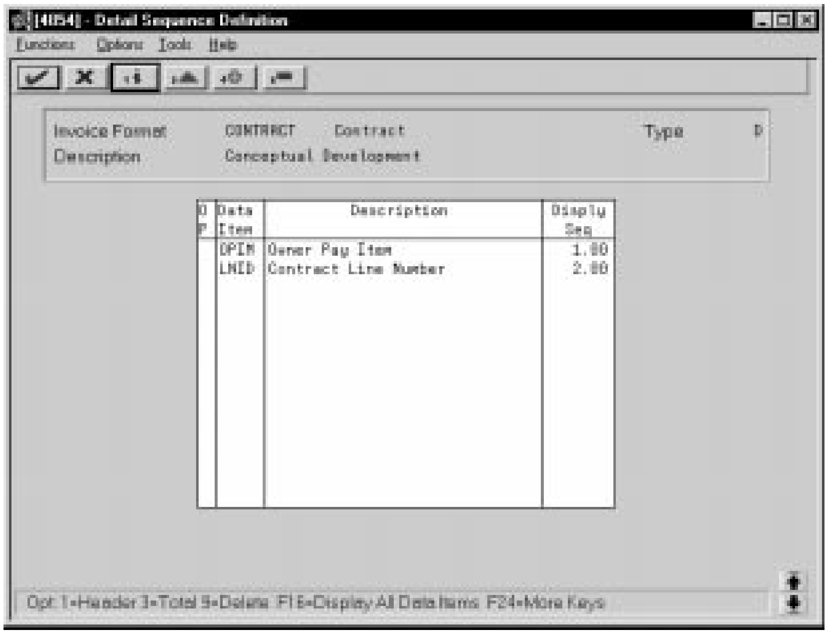
7. On Major Sequence Definition, choose any of the following options to review a specific Format Definition form for a data item in the major sequence:
    - Header
    - Total

    The following example shows the Format Definition form for the header of a data item in the major sequence.


[41055] - Format Definition
Functions
Tools
Help
F13=Retrieval F16=Copy F17=Ins F18=Del 19=Left F20=Right F24=More Keys

Format Code CONTRACT Contract
Invoice Type D
Format Type 1 Header
Window Increment ☐
Line 001
Position 001
New Page (Y/N) ☐
Repeat Page ☐

8. Complete steps 3 and 4 to return to Invoice Layout Revisions.
9. On Invoice Layout Revisions, choose Detail Sequence.

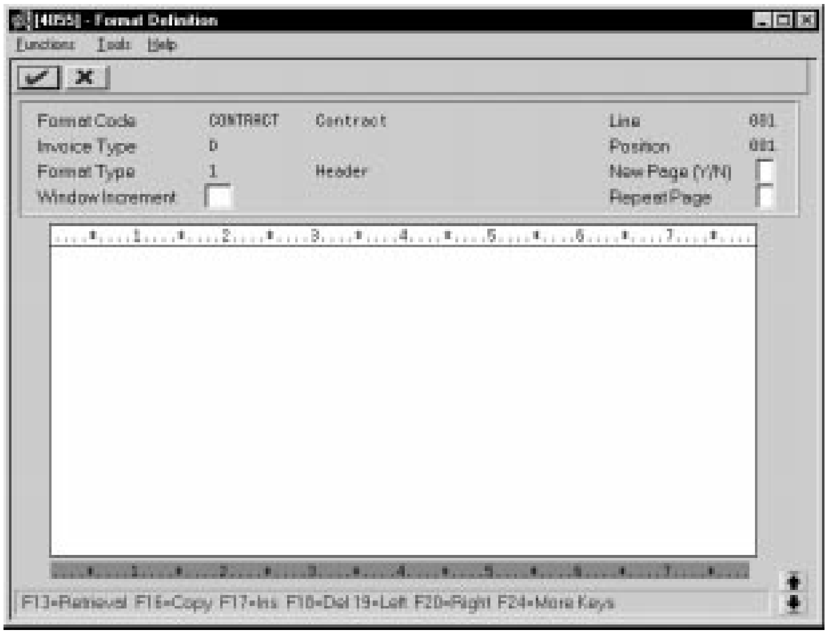

[4054] - Detail Sequence Definition
Functions
Options
Tools
Help

Invoice Format CONTRACT Contract
Type D
Description Conceptual Development

O P	Data Item	Description	Disply Seq
	OPIM	Owner Pay Item	1.00
	LNID	Contract Line Number	2.00

Opt: 1=Header 3=Total 9=Delete F16=Display All Data Items F24=More Keys

10. On Detail Sequence Definition, choose any of the following options to review a specific Format Definition form for a data item related to a grouping key range:
    - Header
    - Total

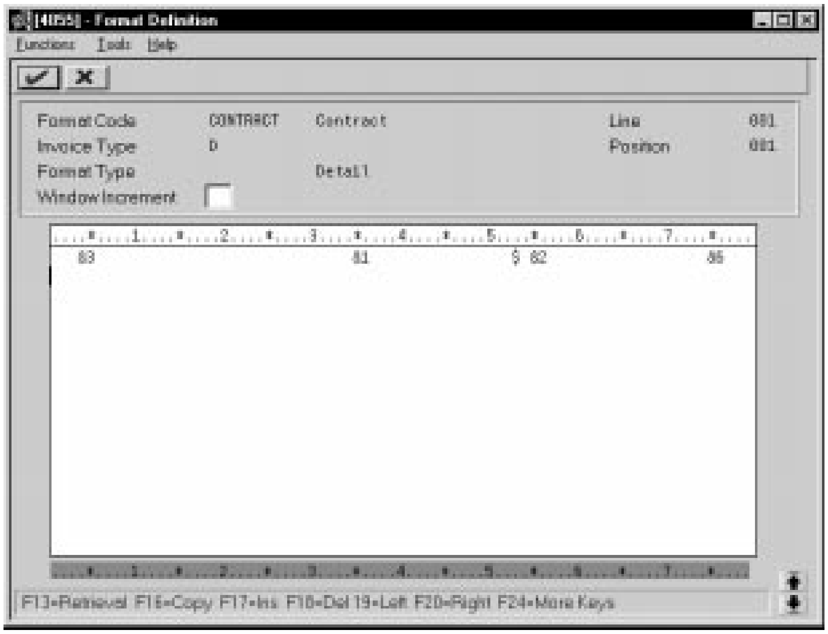

[4055] - Format Definition
Functions
Tools
Help

Format Code CONTRACT Contract
Invoice Type D
Format Type 1 Header
Window Increment ☐
Line 001
Position 001
New Page (Y/N) ☐
Repeat Page ☐

F13=Retrieval F16=Copy F17=Ins F18=Del 19=Left F20=Right F24=More Keys

11. Complete steps 3 and 4 to return to Invoice Layout Revisions.
12. On Invoice Layout Revisions, choose any of the following options to review a specific Format Definition form for a grouping key range:
    - Detail Header Format
    - Detail Detail Format
    - Detail Total Format

    The following example shows the Format Definition form for the Detail Detail Format option for a grouping key range.


Format Definition
Functions
Tools
Help
✓
✗
83
81
$ 82
85
F13=Retrieval F16=Copy F17=Ins F18=Del 19=Left F20=Right F24=More Keys

Format Code CONTRACT Contract
Invoice Type D
Format Type Detail
Window Increment ☐
Line 001
Position 001

13. Complete steps 3 and 4 to return to Invoice Layout Revisions.

What You Should Know About

Printing headers on a new page	You can use the New Page (Y/N) field to specify that the header formats for data items begin on a new page automatically each time you print the format for your invoices. You might want to do this to prevent billing detail from printing on two separate pages.
Repeating headers on subsequent pages	You can use the Repeat Page field to repeat the header format for data items on subsequent pages. You might want to do this when the billing details exceed one page in length.
Testing format definitions	To test a format definition, verify that invoices exist. Then, choose Print Invoices on Invoice Generation.

See Also

- *Defining Formats (P4850)* for more information about retrieval references and invariable information

Copying Formats

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Revisions

You can copy the retrieval references and invariable information that make up a format definition to another format definition. Copying formats is much faster than defining a new format. You might want to copy existing formats if you have already defined formats in your system that are the same or similar to new formats that you need when defining a format for a new layout.

For example, one of your customers might request that all invoices be mailed to a centralized accounting office, but they want the invoice to display the name and location of the remote office site. You copy the formats that comprise your standard layout design to a new layout structure. Then, you change the information on the formats to create a custom layout for that customer that displays the name and location of the remote office site.

You can use the Invoice Format Copy Window to locate the specific format definition forms that you want to review or copy. The Invoice Format Copy Window displays a list of the all the formats defined in your system. The list is arranged alphabetically by the format code. You can identify each of the format types that are associated with a layout structure by using a combination of the following information:

- Line numbers associated with specific grouping key ranges
- Data item names associated with either a major or detail sequence
- Format types, such as detail, header, or total, identified by the respective codes of blank, 1, or 2

When you use the Invoice Format Copy Window to identify a specific Format Definition form, consider the following questions:

1. What is the format code?
2. What is the invoice type?
3. What is the format type (header, total, detail)?
4. Is the format related to a data item or a grouping key?
5. If the format is related to a data item, is the data item related to a grouping key detail sequence or a major sequence?
6. If the format is related to a grouping key, which grouping key line?

The Invoice Format Copy Window does not display alternate header format definitions.

Copying a format immediately updates and saves the new information in the Format Definition form. When you copy a format definition to another format definition form, the system replaces any invariable information, codes, and definitions for the retrieval references that are already in the Format Definition form with the invariable information, codes, and definitions from the format you selected to copy. You cannot retrieve the original information that was on the format. Exiting the program and entering N in the Save Changes (Y/N) field has no effect on the changes that you make to a Format Definition form by copying.

To copy formats

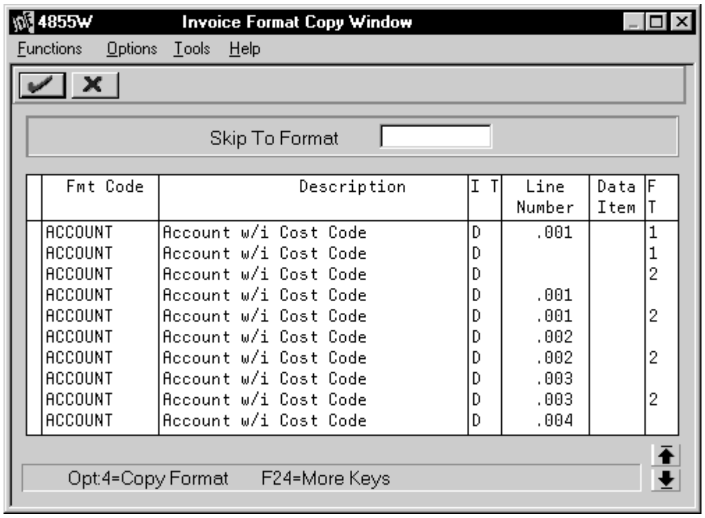
On Invoice Layout Revisions

1. Complete the steps for locating a layout structure.

   See *Reviewing Format Definition Forms*.

2. On Format Definition, choose Copy.

   The system displays Invoice Format Copy Window.



Skip To Format

Fmt Code	Description	I T	Line Number	Data Item	F T
ACCOUNT	Account w/i Cost Code	D	.001		1
ACCOUNT	Account w/i Cost Code	D			1
ACCOUNT	Account w/i Cost Code	D			2
ACCOUNT	Account w/i Cost Code	D	.001		
ACCOUNT	Account w/i Cost Code	D	.001		2
ACCOUNT	Account w/i Cost Code	D	.002		
ACCOUNT	Account w/i Cost Code	D	.002		2
ACCOUNT	Account w/i Cost Code	D	.003		
ACCOUNT	Account w/i Cost Code	D	.003		2
ACCOUNT	Account w/i Cost Code	D	.004		

Opt:4=Copy Format   F24=More Keys

3. To locate the format code you want to copy, complete the following field:
   - Skip To Format
4. Choose Copy Format for the format code.

   The system copies the format information, including all related invariable information, retrieval reference codes, and code definitions, to the Format Definition form currently displayed. The new format replaces any existing invariable information, codes, and code definitions that you previously defined on the Format Definition form.

5. Choose Exit Program.
6. Complete the following field:
    - Save Changes (Y/N)

    Entering a Y or an N in the Save Changes (Y/N) field has no effect on the changes that you make to a format definition form by copying.

See Also

- *Appendix C – Format Types* to review a listing of the information combinations that you use to identify specific format types

Exercises

See the exercises for this chapter.

Define Formats

Defining Formats

You use invariable information and retrieval references to define the formats that make up a layout. Invariable information is a message that represents the static information that prints on an invoice regardless of the customer or billing details, such as currency symbols or remit-to information. Retrieval references direct the system to the variable information you want to include on the invoice, such as totals, a supplier's name, or dates.

Defining formats consists of the following tasks:

- ☐ Adding messages to a format
- ☐ Defining retrieval references for a format

Lines, Positions, and Rulers

A format definition represents only one section of a layout. A Format Definition form consists of an unlimited number of lines. If you exceed the page length for one format definition, that definition will impact all the definitions for subsequent formats and the entire invoice design.

You enter messages and retrieval references directly onto a line of the Format Definition form. The message or retrieval reference should begin in the position on the Format Definition form that correlates to the actual location where you want the information to print on your invoice.

Lines

When you first access the Format Definition form, the cursor is located in the first position on the first line of the form. The Line field on the form indicates that the location of the cursor is line 001. If your cursor is located within the first 15 lines of the form, the Line field still displays 001 as the line number.

You can page down to view the next 14 available lines. When you do, the Line field displays 15. The first line on the second page is 15, and the last line is 29. The Line field displays the number for the first line within the group of lines currently displayed on the form. You can use the line number to determine approximately how many lines you have defined for a specific format.

Positions

The Invoice Layout Revisions form displays 70 positions horizontally. You can place the cursor anywhere in the existing form display. If you need to place your cursor outside the form display, you must enter a number in the Window Increment field and choose Window Right.

If you choose Window Right without entering a value in the Window Increment field, the system automatically enters 70 in the Window Increment field, and the cursor moves to the 70th position on the form display. To return, choose Window Left.

Rulers

The Invoice Layout Revisions form includes a ruler that you can use to reference the position of the cursor within a line. The ruler consists of dots, asterisks, and numbers. Each symbol represents the following space increment:

Dot	1 space
Asterisk	5 spaces
Number	10 spaces

Use the ruler to find an exact position on the Format Definition form. For example, to place your cursor in the 37th position on a line, you use the ruler to move the cursor to the number 3 position, plus the following asterisk, plus two dots.

Adding Messages to a Format

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Revisions

Messages represent the invariable information that you print on an invoice. The messages you include on a layout can consist of symbols or text. Messages usually do not change from invoice to invoice. For example, you might include text, such as *Please Remit To:* or a symbol, such as a currency sign, on all your printed invoices, regardless of the variable information that appears on the invoice.

You enter messages directly onto a line of the Format Definition form. The message should begin in the position on the Format Definition form that correlates to the actual location where you want the information to print on your invoice. You can enter a message on any line of any format definition that makes up your layout.

Special Format Considerations

You can design invoices so that the formats you define for a layout print across the page rather than down the page. This is especially helpful if you want to print invoices using a multi-columnar format to print continuous lines of billing information.

To print the information from more than one format in columns across the page, you use the special message *&ZICR*. You can enter &ZICR anywhere within a format in the same way that you would enter any other message. When the system finishes printing the information from one format that includes the &ZICR message, it searches for and prints the next format definition that includes the &ZICR message on the same line of the invoice.

▶ To add messages to a format

On Invoice Layout Revisions

1. Complete the steps for reviewing a Format Definition form.

   See *Reviewing Format Definition Forms*.

2. On Format Definition, position the cursor on the line where you want the message to begin.
3. Enter the message.
4. To return to Invoice Layout Revisions, choose Exit Program.

   The system displays a message prompting you to save any changes you made to the Format Definition form.

5. Complete the following field:
   - Save Changes (Y/N)

What You Should Know About

Changing and removing format messages	You can change a message at any time by entering the new message over the existing message. To enter additional messages, use the Insert key and add the message To remove a portion of the message, enter spaces over the message or use the Delete key. To clear a line that includes a message, choose Delete A Line.

Adding blank lines	Position the cursor and choose Insert A Line. The system inserts a blank line below the cursor.
Printing boldfaced text	Use the special message &ZICR to boldface text. Enter &ZICR at the end of the line you want to boldface. On the line directly beneath the &ZICR, type &ZICR and repeat the information exactly as it appears on the preceding line.

See Also

- *Defining Retrieval References for a Format* for more information about printing variable information, such as totals, on an invoice

Exercises

See the exercises for this chapter.

Defining Retrieval References for a Format

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Invoice Layout Revisions

Invoices typically include information that varies by invoice and customer, depending on the billing transactions. When you design invoices with Invoice Formatting, you use retrieval references to define the variable information that you want to print on invoices. For example, you can use retrieval references to:

- Direct the system to the information stored in various files that you want to include on an invoice
- Perform calculations, such as add, subtract, multiply, and divide
- Store and recall the results of a previous calculation
- Add special information on an invoice that is not contained in a table, such as the page numbers

Not all of the information defined in retrieval references must print on the customer's invoice. You can specify a register to store the information in memory. Later, you can recall the information for use in another format within the layout structure.

Types of Variable Information

You can use retrieval references to direct the system to the following types of variable information:

- Information related to data items
- Calculations
- Totals

Information Related to Data Items

The information that is stored in system tables is directly related to data items. Each data item corresponds to a particular field in a table. To define retrieval references, you need to know the name and specifications of the data items for the information stored in system tables that you want to print on your invoices.

Invoice Formatting includes a list of all the tables from which you can retrieve variable information for your invoices. You can access the File Field Description window to review a list of the names of the data items within a specific table. The File Field Description window also lists the specifications of each data item, such as its size and type.

The size of a data item represents the maximum number of positions you will need to reserve in the line on the Format Definition form to accommodate the variable information. If you know the data item size, you can prevent truncating or overprinting information on an invoice.

The type of a data item refers to whether the information related to the data item is alpha, numeric, alphanumeric, and so on. If you know the data item type, you can determine the exact format specifications for the information stored in the data item. For example, you might want to specify the number of decimal positions and whether commas display for the information that is related to a numeric data item.

Calculations

You can define retrieval references for the mathematical calculations of add, subtract, multiply, and divide. Retrieval references for calculations can include:

- Specific values
- Variable information, based on another retrieval reference
- Combinations of specific values and retrieval references

For example, if payroll details are part of a customer's billing transaction detail, you might define a retrieval reference that performs a calculation such as:

> Number of Hours Worked x Hourly Rate

In this example, the number of hours worked might be variable information and the hourly rate might be a specific value, such as 50. In this case, you define a retrieval reference to retrieve the number of hours worked for which you want to bill. The retrieval reference that you define for the calculation specifies to the system to multiply the value retrieved by the retrieval reference for the number of hours worked multiplied by 50.

Totals

You can define a retrieval reference for totals. You can incorporate totals in an invoice as individual subtotals or as totals that are added to make up another total. To add individual totals to create a subtotal on an invoice, you need to use a register.

Registers are storage locations that can be used to:

- Print an amount on an invoice
- Perform calculations
- Accumulate, but not necessarily print, calculated amounts for future calculations

You can define up to 99 unique register locations within a layout structure. You use a retrieval reference to specify whether a register is used to accumulate, store or recall totals.

The number of times you can add previously calculated totals into a new total depends on your placement of registers within a retrieval reference within the formats you define for the layout.

To print multiple subtotals within a layout structure, you must:

- Determine the correct order of the formats on which you want to recall the totals
- Define a retrieval reference for the format
- Know the number of the appropriate register locations to recall within the retrieval reference

The order of the format definitions containing the appropriate register locations are determined based on the most specific total for group of billing transactions to the overall total for the invoice. You use the following hierarchy to determine the correct format on which to define retrieval references containing the appropriate register locations:

- Individual billing transactions are accumulated in a register to equal a detail sequence data item total.
- Detail sequence data item subtotals are accumulated in a register to equal a grouping key total.
- Grouping key subtotals are accumulated in a register to equal a major sequence data item total.

- Major sequence data item subtotals are accumulated in a register to equal the overall invoice total, or grand total.

You do not have to define all four subtotals. For example, if you do not define a major sequence data item total, you can accumulate grouping key totals in a register to equal the overall invoice (grand) total.

Retrieval Reference Definitions

When you access a Format Definition form for the first time, the format display is blank. You must define retrieval references for the format to direct the system to the variable information you want to print for that particular section of the invoice.

You define retrieval references directly on a line of the Format Definition form. The retrieval reference should begin in the position on the form that correlates to the actual location where you want the variable information to print on your invoice. You can enter a retrieval reference on any line of any format definition that makes up your layout.

When you define retrieval references, you must specify how you want the system to use each reference based on the following information:

- Retrieval code
- Parameters
- Format specifications

Retrieval Codes

The retrieval code you specify for a retrieval reference determines the type of reference that you define. You must specify a retrieval code for each retrieval reference. Retrieval codes tell the system what kind of variable information you want the retrieval reference to retrieve and whether you want the system to display the information as is or to use it to perform a calculation. Retrieval codes can also direct the system to a table from which you can retrieve variable information that is related to a specific data item.

Invoice Formatting includes predefined retrieval codes, such as *Add* for calculations, *Account* to specify a table, and *Page* to specify page numbers. If you need a retrieval code that is not already included in the system, you can define custom retrieval codes.

Parameters

You use parameters in combination with retrieval codes to further define a retrieval reference. For example, you might define parameters for a retrieval code to specify:

- Names of data items within a specific table
- Mathematical applications, such as add
- The code for another retrieval reference

You can assign up to five parameters for a retrieval reference. The number of parameters you are required to specify for a retrieval reference depends on the retrieval code for the reference.

Each retrieval code has different parameter requirements. To determine whether a specific retrieval code requires parameters, choose Field Sensitive Help for the first parameter. After you define the first parameter, continue choosing Field Sensitive Help for the subsequent parameters. When you choose Field Sensitive Help for the first parameter that is not required for the retrieval code, the system displays the following message:

> *A generalized 10 character parameter value passed to a called program.*

Format Specifications

After you have determined the retrieval code and parameters for a retrieval reference, you can define further specifications to control exactly how the system prints the retrieved information on the invoice. For example, if you define a retrieval reference for a billing amount, you could define format specifications so that the amount prints right justified with decimals.

You must always specify a size for the retrieval reference, regardless of whether you print the retrieved information.

See Also

- *Defining Custom Retrieval Codes (P4857)*
- *Appendix B – Retrieval Reference Codes* for a listing of retrieval reference codes and their applicable parameters
- *Appendix D – Field Derivations for the F4812* for a listing of the source information for each field in the Billing Workfile

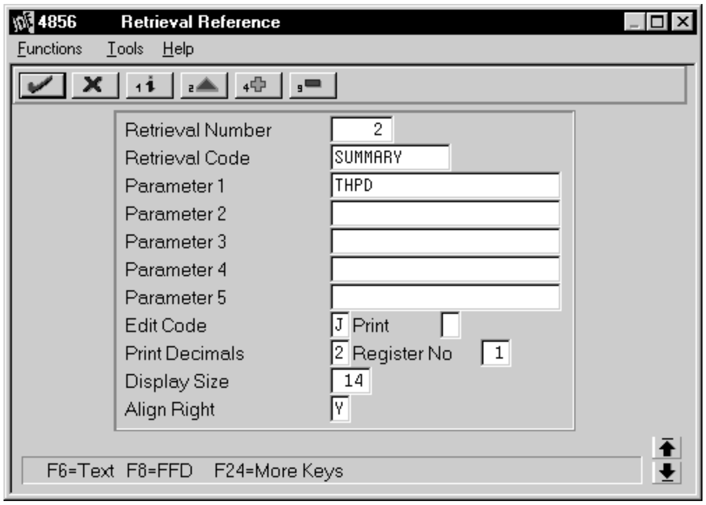
▶ To define retrieval references for a format

On Invoice Layout Revisions

1. Complete the steps to locate the format definition for a layout structure or data item.

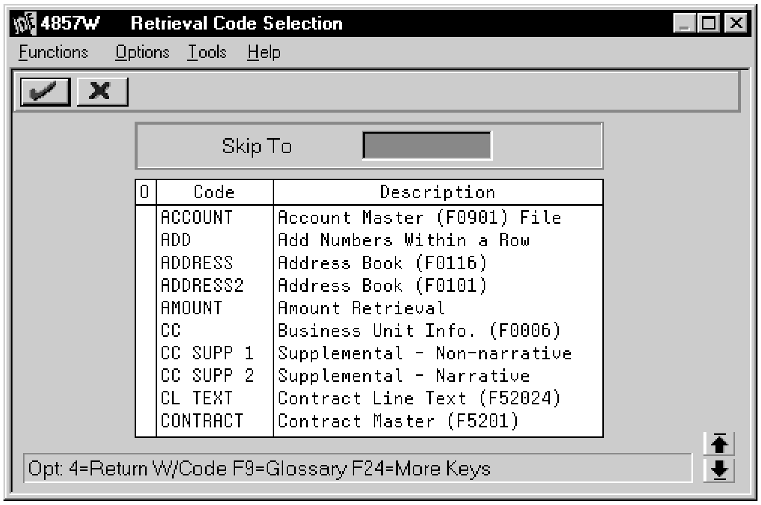
   See *Reviewing Format Definition Forms*

2. On Format Definition, position your cursor where you want the retrieved information to print.
3. Choose Retrieval Reference.


4856 Retrieval Reference
Functions Tools Help
F6=Text F8=FFD F24=More Keys

Retrieval Number	2
Retrieval Code	SUMMARY
Parameter 1	THPD
Parameter 2	
Parameter 3	
Parameter 4	
Parameter 5	
Edit Code	J Print ☐
Print Decimals	2 Register No 1
Display Size	14
Align Right	Y

4. On Retrieval Reference, choose Field Sensitive Help for the following field to see a list of the predefined retrieval codes:
   - Retrieval Code


4857W Retrieval Code Selection
Functions Options Tools Help
Skip To
Opt: 4=Return W/Code F9=Glossary F24=More Keys

O	Code	Description
	ACCOUNT	Account Master (F0901) File
	ADD	Add Numbers Within a Row
	ADDRESS	Address Book (F0116)
	ADDRESS2	Address Book (F0101)
	AMOUNT	Amount Retrieval
	CC	Business Unit Info. (F0006)
	CC SUPP 1	Supplemental - Non-narrative
	CC SUPP 2	Supplemental - Narrative
	CL TEXT	Contract Line Text (F52024)
	CONTRACT	Contract Master (F5201)

5. On Retrieval Code Selection, choose the code you want to use to define the retrieval reference.
6. On Retrieval Reference, complete the following fields to specify any of the parameters required for the retrieval code:
   - Parameter 1–5

   If the retrieval code specifies a table, position your cursor in Parameter 1 and choose File Field Description to determine the correct data item.

7. Complete the following field:
   - Display Size

   You must complete the Display Size field. If you do not specify a display size, the reference will not retrieve the related information.

8. To specify a register in which to store the retrieved information, complete the following field:
   - Register Number
9. To control the format specifications for the retrieved information, complete the following fields:
   - Edit Code
   - Print
   - Print Decimals
   - Align Right
10. Use the Change action.

    The system clears the window.

11. Choose Exit Program.

    The system closes the Retrieval Reference window and displays an ampersand (&) and the number of the retrieval reference (without leading zeros) in the line and position where you last located the cursor.

What You Should Know About

Numbering retrieval references

If you have not defined retrieval references for a particular form, the system assigns Retrieval Number 1 for the first retrieval reference that you define. If 6 retrieval references were already defined for the Format Definition form, the Retrieval Number would be 7.

The system might not display all the retrieval reference codes for retrieval references that you have previously defined for a Format Definition form. This can happen if you delete the code for the retrieval reference from the form, but not the definition.

Deleting retrieval references

To delete retrieval references, follow the steps to locate a retrieval reference. After you review the information for the reference that you want to delete, use the Delete action to remove the information that defines the reference. When you return to the format definition, clear the code for the retrieval reference from the format by entering spaces in place of the code.

Note: After you delete a retrieval reference and its code from the Format Definition form, the system does not reassign that number. You can then assign the number to a new retrieval reference.

Printing page numbers

You can print page numbers anywhere on an invoice. To print page numbers, position the cursor where you want to define the page number within the format and use the retrieval code *PAGE*.

Total page number counts

You can print a running page count on your invoices along with the current invoice page number. First, define a retrieval reference for the format using the code *PAGE*. Next, enter a message to print the static message *of*. Finally, define another retrieval reference with the retrieval code *PAGE OF*.

Printing dates

You can print the system date anywhere on an invoice. To print the date, position the cursor where you want the system date to print within the format. Then, define a retrieval reference with the retrieval code *DATE*.

Printing amounts

You can print the cost amount or the unit amount anywhere on an invoice. The cost amounts can apply to payroll labor and its related burden costs, components, and so on. To print the cost or unit amount, position the cursor where you want to define the amount within a format and use the retrieval code *AMOUNT*.

Printing cumulative totals for contracts

You can print cumulative totals on an invoice using information from the Invoice Summary Access table (F48520). A system constant controls whether the system creates and maintains this table.

Totals within a Format Definition form

Your placement of registers within a Format Definition form is critical to accumulating the correct total on your printed invoices. You must enter the retrieval reference containing the register above and to the left of the retrieval reference that recalls the accumulated register results.

Note: You use the *TOTAL* retrieval code and parameters to recall the specific register number.

Clearing registers

Registers continue to accumulate totals until you clear the totals from the registers. When you clear a register, you set the accumulated amount to zero. Then you can reuse the register to accumulate a new total amount.

You clear a register after its accumulated total has been recalled by another retrieval reference within the layout structure. To do this, you must use a 1 in the second parameter of the retrieval reference that recalls the register.

Calculations

You can assign up to four parameters to a retrieval reference that performs a calculation. The system processes the parameters sequentially. You use the parameters in place of parentheses. This is especially helpful if you need to incorporate multiple variables within a single calculation.

Retrieval codes for text

The File Field Description window does not apply when the system retrieves text using the following retrieval codes:

- CC SUP2
- INV TEXT
- WO TEXT
- NOTES
- CL TEXT

Exercises

See the exercises for this chapter.

Define Custom Retrieval Codes

Defining Custom Retrieval Codes

From Contract Billing Processing (G52), enter 29

From Contract Billing System Setup (G5241), choose Retrieval Code Definition

The predefined retrieval codes included in the Contract Billing system represent the most commonly used tables and information you use to print variable information on a customer's invoice. If you need to print special variable information that is stored in an additional system table, such an employee's social security number from the Employee Master table, you must define a custom retrieval code.

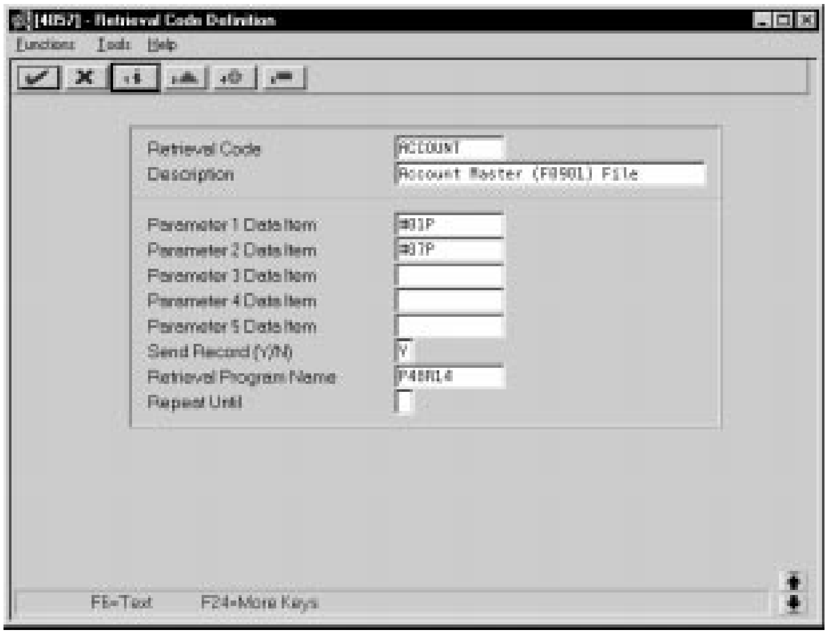
Custom retrieval codes can retrieve text or a value or perform special calculations. To define custom retrieval codes, you can:

- Locate the data items that you want to use by defining unique parameters
- Create a custom retrieval program
- Enter narrative text to describe the code
- Associate the new code with the File Field Description window

Do not delete any of the standard codes listed on the Retrieval Code Definition form. Deleting these codes causes unpredictable results.

To define custom retrieval codes

On Retrieval Code Definition



Retrieval Code	ACCOUNT
Description	Account Master (F0901) File
Parameter 1 Data Item	#01P
Parameter 2 Data Item	#07P
Parameter 3 Data Item	
Parameter 4 Data Item	
Parameter 5 Data Item	
Send Record (Y/N)	Y
Retrieval Program Name	P48R14
Repeat Until	

1. Complete the following fields:
   - Retrieval Code
   - Description
   - Parameter 1 Data Item
   - Retrieval Program Name
2. Complete the following optional fields:
   - Parameter 2 Data Item – Parameter 5 Data Item
   - Send Record (Y/N)
   - Repeat Until

Field	Explanation
Parameter 1 Data Item	You must specify a Data Item name if the parameter is used by the specified retrieval code. The Data Item controls the glossary and editing for the parameter at the time the Retrieval Code is being referenced.

Field	**Explanation**
Send Record (Y/N)	A Retrieval Code is generally processed in conjunction with an individual Billing Workfile record. Specific Retrieval Codes can require access to all of the information contained on the workfile record. You can use the Send Record code to instruct the system to include the entire workfile record, in one data structure, as one of the parameters passed to the Retrieval Program. You can use this field to determine which parameters from the Billing Workfile (F4812) will be passed to the Retrieval Program. The values are: Y Yes, send the entire Billing Workfile. N No, send only the specified parameters.
Retrieval Program Name	The Retrieval Program is the name of the program which will be executed to extract the desired data and return a value. The Retrieval Program must exist as a valid program in the user's library list by the time it is called. The program must conform to the common interface standards used by the system and must accept the correct number and type of parameters.
Repeat Until	You can use this code to control information that the system retrieves in a repetitive manner, such as lines of text within a text file. The Invoice Print program continues to use the same Retrieval Code in the same position until the specified condition is achieved. The following values are valid: blank No repetition. Stop after the first line of text. C Conflict. Repeat the Retrieval Code in the same position on subsequent lines until a line is reached that contains information in the same positions that the Retrieval Code would use or until the end of the format is reached. You might use this code if you were using a pre-printed form with a restricted number of lines for the information. D Done. Repeat the Retrieval Code and the associated format line until the Retrieval Program returns an "end of file" value. Note: You must assign the same number of characters per line to the retrieval reference code as the retrieved information requires. The text will not wrap. Each line will be truncated when the characters per line is reached.

What You Should Know About

Adding text to a custom retrieval code	You can attach descriptive text to a custom retrieval code. For example, you might want to add text to explain the specific purpose of the code or to include calculations or other descriptive information. To add text, locate the code you want and choose Review/Update Text. The system displays a text entry form. After you add text to a retrieval code, you can display the text for the code or change it at any time. The text you enter is informational only. You cannot print the text you associate with a retrieval code on a printed invoice.
Locating text for a retrieval code	You can locate text for a retrieval code from the Retrieval Code Definition form or the Retrieval Code Selection window on the Format Definition form.
Retrieving programs for a custom retrieval code	You must write a custom program to use custom retrieval codes. Use the name of the custom program in the Retrieval Program Name field when you define a custom retrieval code.

Appendices

Appendix A – Test Yourself Answers

Invoice Formatting

1. False, other systems, such as Work Orders, Accounts, Payable, and Address Book can also be used.
2. E
3. Variable information. Some examples are:

    Customer name

    Address information

    Work order number

    Hours, dates, and rates

    Billing amounts

    Totals

   Invariable information. Some examples are:

    Currency symbols

    Text, such as Remit To:

    Underscores

4. False, it prints on the first page. The Alternate Header prints on the remaining pages if a format has been designed.
5. True
6. True

Appendix B – Data Model

The flowchart on the following page illustrates the relationships between the principal physical tables for invoice formatting for the Contract Billing system.

To present the information in an uncluttered format, the lesser control tables, worktables, and tables for seldom-used features have been omitted.

Contract Billing Invoice Format Definition

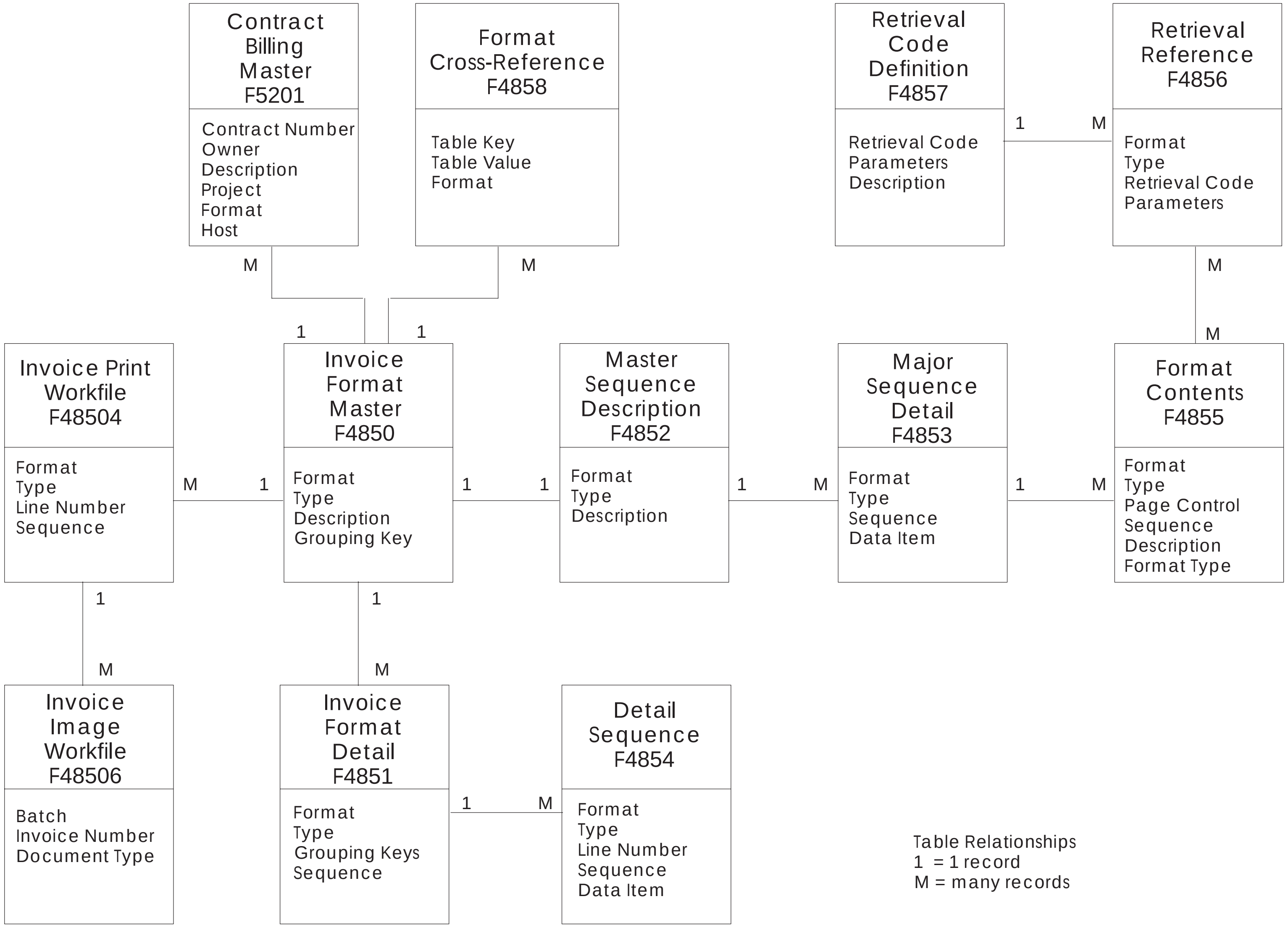

Contract Billing Master F5201
Contract Number
Owner
Description
Project
Format
Host
Format Cross-Reference F4858
Table Key
Table Value
Format
Retrieval Code Definition F4857
Retrieval Code
Parameters
Description
Retrieval Reference F4856
Format
Type
Retrieval Code
Parameters
Invoice Print Workfile F48504
Format
Type
Line Number
Sequence
Invoice Format Master F4850
Format
Type
Description
Grouping Key
Master Sequence Description F4852
Format
Type
Description
Major Sequence Detail F4853
Format
Type
Sequence
Data Item
Format Contents F4855
Format
Type
Page Control
Sequence
Description
Format Type
Invoice Image Workfile F48506
Batch
Invoice Number
Document Type
Invoice Format Detail F4851
Format
Type
Grouping Keys
Sequence
Detail Sequence F4854
Format
Type
Line Number
Sequence
Data Item
M
1
M
1
1
M
M
M
M
1
1
1
1
M
1
M
1
M
1
M
1
M

Table Relationships
1 = 1 record
M = many records

Appendix C – Retrieval Reference Codes

You set up the retrieval reference codes with the Retrieval Reference window. This window is accessed from the Format Revisions screen. The following table describes the parameters that relate to retrieval codes. Be aware of the following:

- Only the applicable parameters are listed for each retrieval code.
- To display more information about each parameter, use function keys F1 (field help) and F8 (table field descriptions).

The Display Size field is a required field for the setup of all the retrieval reference codes. If a display size is not specified, the related information is not printed on the invoice.

Retrieval Code and Source Table	Para–meter	Explanation
ADD No source table	1 – 4	A mathematical function performed over retrieved information. For that information, specify the numbers of the retrieval reference codes in the parameter fields. For example, if the calculation relates to retrieval reference code numbers 7 and 10, you would specify &7 in parameter 1 and &10 in parameter 2. You can also specify other numeric values involved in the calculation, such as -1, .10, or 100.
ADDRESS Address by Date (F0116)	1	The data item related to the information you want to retrieve from the F0116 table.
	2	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer.
	3	Determines the address number for the alternate address information, such as the alternate billing number or parent number.
	4	The date on which a change of address takes place. It is compared with the effective date for the address number. This parameter applies *only* if the Addresses by Effective Date field on the Address Book Constants form is set to 1.

Retrieval Code and Source Table	Para–meter	Explanation
ADDRESS2 Account Master (F0101)	1	The data item related to the information you want to retrieve from the F0101 table.
	2	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer.
	3	Determines the address number for the alternate address information, such as the alternate billing number or parent number.
ACCOUNT Address Book Master (F0901)	1	The data item related to the information you want to retrieve from the F0901 table.
	2	Determines whether the account information is related to the original (posting) cost account or the closest previous non-posting account. For example, Professional could be the description for a posting cost account or Labor for a non-posting account.
AMOUNT No source table	1	Determines the type of amount you want printed, such as a cost amount or a unit quantity. An amount can be included on any detail or total format.
	2	This parameter applies to payroll labor and its related burden costs. It determines whether the system prints the total billing amount, only the labor costs, or only the burden costs.
	3	This parameter applies only to a workfile record with associated components. It determines whether the system prints amounts related to the base transactions or to the specified component code.
CC Business Unit (Job) Master (F0006)	1	The data item related to the information you want to retrieve from the F0006 table.
	2	Determines whether the business unit is related to a job, home business unit, or project number.

Retrieval Code and Source Table	Para–meter	Explanation
CC SUPP 1 Business Unit (Job) Supplemental Data Codes (F00692)	1	The data item related to the information you want to retrieve from the F0692 table.
	2	Determines whether the business unit is related to a job, home business unit, or project number.
	3	The data type for the supplemental data that is defined for the code format (C). This data type is non-narrative. If daily job logs are required on the invoice, for example, you specify DL.
	4	A code related to the data type you specified for parameter 3. Such a code is displayed in the first column on the Supplemental Code Entry form. For example, the first column for daily job logs (data type DL) is Log Type.
CC SUPP 2 Business Unit (Job) Supplemental Data Text (F00693)	1	Determines whether the business unit is related to a job, home business unit, or project number.
	2	The data type for the supplemental data that contains free-form text. In this case, the data type can be defined for either the code format (C) or the narrative format (N). If a legal description is required on the invoice, for example, you specify LG.
	3	This parameter is similar to parameter 4 for the retrieval code CC SUPP 1. Therefore, if the data type in parameter 2 is defined for the code format, you must use parameter 3 to specify a code related to the data type. However, if the data type in parameter 2 is defined for the narrative format, you must leave parameter 3 blank.
CL TEXT Owner Pay Item Text (F52024)	N/A	This retrieval code lets you print on the invoice the text related to contract owner pay items. This is typically used at either the transaction or the transaction summary level of the invoice. These two levels relate to the Service Billing Workfile (F4812) and Invoice Summary Workfile (F4822), respectively. No parameters are applicable to this code.
CONTRACT Contract Billing Master (F5201)	1	The data item related to the information you want to retrieve from the F5201 table.

Retrieval Code and Source Table	Para–meter	Explanation
CUMULATIVE (This retrieval code applies only to contracts.) Invoice Summary Access (F48520)	1	The data item related to the information you want to retrieve from the F48520 table. Be aware that the F48520 table must be built and maintained, which is controlled by the Invoice Summary Access Control field on the System Constants form.
	2	Determines the summary level of the billed-to-date total amount in relationship to the contract information. For example, it can be summarized by owner pay item.
	3	Determines the summary level of the billed-to-date total amount in relationship to the G/L account number. For example, it can be summarized by business unit and subsidiary.
	4	Determines whether the summary level of the billed-to-date total is by employee and supplier.
	5	This parameter applies only to pay items for time and materials (T and M) with components. It determines whether the system prints amounts related to the base transactions or to the specified component code.
CUSTOMER Customer Master (F0301)	1	The data item related to the information you want to retrieve from the F0301 table.
	2	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer.
	3	Determines the address number for the alternate address information, such as the alternate billing number or parent number.
DATE No source table	N/A	This retrieval code lets you print the system date on the invoice. No parameters are applicable to this code.
DIVIDE No source table	1 – 4	A mathematical function performed over retrieved information. For that information, specify the numbers of the retrieval reference codes in the parameter fields. For example, if the calculation relates to retrieval reference code numbers 7 and 10, you would specify &7 in parameter 1 and &10 in parameter 2. You can also specify other numeric values involved in the calculation, such as -1, .10, or 100.

Retrieval Code and Source Table	Para– meter	Explanation
EQUIPMENT Item Master (F1201)	1	The data item related to the information you want to retrieve from the F1201 table.
	2	Determines whether the information relates to equipment involved in the work (equipment worked) or equipment on which work is performed (equipment worked on). If you operate a crane, for example, the crane is the equipment worked. If you use a timing machine to fix the crane's motor, the crane then becomes the equipment worked on and the timing machine is the equipment worked.
INV TEXT Service Billing Invoice/Batch Text (F4813)	1	Determines the level within a batch from which the free-form text for the invoices is retrieved. The levels are batch, invoice, pay item, and transaction.
MILE/PROG Milestone/Progress Billing (F5216 and F52161)	1	The data item related to the information you want to retrieve from either the F5216 table or F52161 table. Note: To display progress billing information from the Table Field Description window, you must enter F2161.
MULTIPLY No source table	1 – 4	A mathematical function performed over retrieved information. For that information, specify the numbers of the retrieval reference codes in the parameter fields. For example, if the calculation relates to retrieval reference code numbers 7 and 10, you would specify &7 in parameter 1 and &10 in parameter 2. You can also specify other numeric values involved in the calculation, such as -1, .10, or 100.
NOTES (This retrieval code applies only to Address Book notes.) Generic Text (F0016)	1	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer. Do not specify data items for this parameter because only the text can be retrieved.
	2	Determines the address number for the alternate address information, such as the alternate billing number or parent number.
PAGE No source table	N/A	This retrieval code lets you print the page number on the invoice. No parameters are applicable to this code.

Retrieval Code and Source Table	Para– meter	Explanation
PAGE OF No source table	N/A	This retrieval code lets you print the page number and the total page count, such as page 3 of 4 pages. No parameters are applicable to this code.
PAY ITEM Owner Pay Item Detail (F5202)	1	The data item related to the information you want to retrieve from the F5202 table.
PAY TYPE Payroll Transaction Constants (F069116)	1	The data item related to the information you want to retrieve from the F069116 table.
PHONE NO Address Book - Contact Phone Number (F0115)	1	The data item related to the information you want to retrieve from the F0115 table.
	2	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer.
	3	Determines the address number for the alternate address information, such as the alternate billing number or parent number.
SUBTRACT No source table	1 – 4	A mathematical function performed over retrieved information. For that information, specify the numbers of the retrieval reference codes in the parameter fields. For example, if the calculation relates to retrieval reference code numbers 7 and 10, you would specify &7 in parameter 1 and &10 in parameter 2. You can also specify other numeric values involved in the calculation, such as -1, .10, or 100.
SUMMARY Invoice Summary Workfile (F4822)	1	The data item related to the information you want to retrieve from the F4822 workfile.
SUPPLIER Supplier Master (F0401)	1	The data item related to the information you want to retrieve from the F0401 table.
	2	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer.
	3	Determines the address number for the alternate address information, such as the alternate billing number or parent number.

Retrieval Code and Source Table	Para–meter	Explanation
TERMS Payment Terms (F0014)	1	The data item related to the information you want to retrieve from the F0014 table.
TIME No source table	N/A	This retrieval code lets you print the system time on the invoice. No parameters are applicable to this code.
TOTAL No source table	1	A register number related to a rolling total amount from any format definition connected to the format layout.
	2	Determines whether the register in parameter 1 is reset to zero after it has been totaled. When the register is reset, the subsequent total does not include the prior total.
WHOS WHO Address Book - Who's Who (F0111)	1	The data item related to the information you want to retrieve from the F0111 table.
	2	Determines the address number for the information to be printed. For example, you could specify the address number for the company or job customer.
	3	Determines the address number for the alternate address information, such as the alternate billing number or parent number.
	4	The line number related to the information you want to retrieve. The number, which is automatically assigned by the system, is *not* displayed on any form, but is kept in the Who's Who Line field of the F0111 table. The primary mailing name is line number 0, and other names related to an address are greater than zero. These numbers begin with 1 and are incremental. **CAUTION**: If you delete a name on the Who's Who form, the remaining names keep the original line numbers. The line numbers, therefore, would not correlate with the new sequence of names as it appears on the Who's Who form.
WO Work Order Master (F4801)	1	The data item related to the information you want to retrieve from the F4801 table.

Retrieval Code and Source Table	Para–meter	Explanation
WO TEXT Work Order Instructions (F4802)	1	The record type for work orders related to the text you want to retrieve from the F4802 table.
WORKFILE Billing Workfile (F4812)	1	The data item related to the information you want to retrieve from the F4812 workfile.

Appendix D – Format Types

You use the Invoice Format Copy Window to locate the specific format definition forms that you want to review or copy. The Invoice Format Copy Window displays a list of the all the formats defined in your system, with the exception of alternate header formats. You can identify each of the format types that are associated with a layout structure by using a combination of the following information:

- Line numbers associated with specific grouping key ranges
- Data item names associated with either a major or detail sequence
- Format types, such as detail, header, or total, identified by the respective codes of blank, 1, or 2

The following table lists the field combinations you use to identify the different format types that the system displays in the Invoice Format Copy Window:

Format Type	Field Combinations
Overall header for invoice layout	• Line number – blank • Data item – blank • Format type – 1
Overall invoice total for invoice layout	• Line number – blank • Data item – blank • Format type – 2
Detail header for a grouping key range	• Line number – XXX • Data item – blank • Format type – 1
Detail total for a grouping key range	• Line number – XXX • Data item – blank • Format type – 2
Detail detail for grouping key range	• Line number – XXX • Data item – blank • Format type – blank

Format Type	Field Combinations
Header detail sequence for grouping key range	• Line number – XXX • Data item – AAAA • Format type – 1
Total detail sequence for grouping key range	• Line number – XXX • Data item – AAAA • Format type – 2
Header major sequence for layout structure	• Line number – blank • Data item – AAAA • Format type – 1
Total major sequence for layout structure	• Line number – blank • Data item – AAAA • Format type – 2

Appendix E – Field Derivations for the F4812

The following table shows the source of the information for each field in the Billing Workfile (F4812). For many fields, the source depends on specific conditions and other retrieval information. Use the following list of table IDs and names to identify the sources specified in the table.

F0005	User Defined Codes
F0006	Business Unit Master
F0014	Payment Terms
F0101	Address Book Master
F0411	A/P Account Ledger
F06116	Employee Transactions Detail
F0618	Payroll Transaction History
F0624	Burden Distribution
F069116	Payroll Transaction Constants
F0901	Account Master
F0911	Account Ledger
F1201	Item Master
F4111	Item Ledger
F4311	Purchase Order Detail
F4801	Work Order Master
F48091	Billing System Constants
F48096	Cost Plus Markup Information
F4812	Billing Workfile
F48127	Tax Derivation Information
F5201	Contract Billing Master
F5202	Owner Pay Item Detail
F5212	T&M Cross-Reference Accounts

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDAA (Amount)	Default.	GLAA / F0911
	GLDCT (Document Type) field in the F0911 record contains T2.	YTGPA (Gross Pay) / F0618 or F06116
	GLDCT field in the F0911 record contains T2. The transaction relates to a burden reconciliation.	J#BDA (Burden Amount) / F06116
	GLDCT field in the F0911 record contains T4.	YTRCPY (Recharge Amount) / F0618 or F06116
	GLDCT field in the F0911 record contains T5.	YTEQGR (Equipment Gross) / F0618 or F06116
WDAA2 (Amount)	This field is currently not active.	
WDACL0 (Rate Group)	GLASID (Serial Number) field in the F0911 record is not blank.	FAACLO / F1201
WDADCI (Invoice Markup Amount)	WQGTYP (Generation Type) field in the F48096 record contains 1.	WQAA (Amount) / F48096
WDADCR (Revenue Markup)	WQGTYP (Generation Type) field in the F48096 record contains 2.	WQAA (Amount) / F48096
WDAGS (Suspend Aging)		WDAGS
WDAID (Account ID)	Default.	GLAID / F0911
	The billing transaction is for burden.	GMAID (Short Account ID) for the burden account / F0901
WDAID5 (Account ID)	Contract Billing. G6ACCO (Account Override Flag) field in the F5202 record is blank.	G6MCU, G6OBJ, and G6SUB (Business Unit, Object, and Subsidiary) / F5202
WDAID6 (Account ID)	This field is currently not active.	
WDAN8 (Address Number)	Default.	GLAN8 / F0911
	GLDCT (Document Type) field in the F0911 record contains T2, T4, or T5.	YTAN8 / F0618 or F06116

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDAN8O (Owner/Receivable Address Number)	Default. GLMCU (Business Unit) field in the F0911 record.	MCAN80 for the related business unit / F0006
	GLSBL (Subledger) field in the F0911 record is not blank. GLSBLT (Subledger Type) field in the F0911 record contains W. WZCNBS (Customer Number Basis) field in the F48091 record contains 1.	WAAN8 (Address Number) for the related subledger / F4801
	Contract Billing.	G4AN80 / F5201
WDAREX (Accounts Receivable)		WDAREX / F4812
WDBCI (Billing Control ID)		Automatically assigned with the Next Numbers facility (system 48. index 02)
WDBDPN (Burden Pending)		Automatically assigned
WDBLKK (Block of Composite Key)		Automatically assigned
WDBRT (Revenue Rate)	WQGTYP (Generation Type) field in the F48096 record contains 2.	WQBRT (Billing Rate) / F48096
WDBRTI (Invoice Rate)	WQGTYP field in the F48096 record contains 1.	WQBRT / F48096
WDBTOL (Total Billed Amount)		Automatically calculated
WDCAP (Cap or Override Rate)	WQGTYP (Generation Type) field in the F48096 record contains 2.	WQCAP / F48096
WDCAPI (Cap or Override Rate)	WQGTYP field in the F48096 record contains 1.	WQCAP / F48096
WDCBLC (Coding Block Change)		Automatically assigned
WDCCOD (Component Code)		AFCCOD / F4860
WDCCR (Component Cost Rate Table)	WQCCR field in the F48096 record is not blank.	WQCCR / F48096

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDCIDS (Foreign Invoice Discount)	This field is currently not active.	
WDCINR (Component Invoice Rate Table)	WQCINR field in the F48096 record is not blank.	WQCINR / F48096
WDCITA (Foreign Invoice Taxable Amount)	This field is currently not active.	
WDCITL (Foreign Invoice Amount)	This field is currently not active.	
WDCITX (Foreign Invoice Tax)	This field is currently not active.	
WDCLNK (Component Link)		Automatically assigned
WDCO (Company)		GLCO / F0911
WDCOCH (Contract Change Order Number)	Contract Billing.	G5COCH / F5212
WDCRCD (Currency Code)	GLCO (Company) field in the F0911 record.	CCCRCO related to the company / F0010
WDCRCE (Currency Code)	This field is currently not active.	
WDCRCF (Currency Code)	This field is currently not active.	
WDCRR (Exchange Rate)		Automatically assigned
WDCRRD (Exchange Rate - Divisior)	This field is currently not active.	
WDCRRM (Mode F)		Automatically assigned
WDCRVR (Component Revenue Rate)	WQGTYP (Generation Type) field in the F48096 record contains 2.	WQCRVR / F48096
WDCTRY (Century)		GLCTRY / F0911
WDDAGO (Age Override Date - B)		WDDAGO
WDDC (Description - Compr)	YTAN8 (Address Number) field in either the F0618 or F06116 record.	ABDC / F0101

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDDCP (Discount Percent)	WDAN80 (Owner/Receivable Address Number) field in the F4812 record. ABATR (Receivable Y/N) field in the F0101 contains Y.	PMDCP / F0014
WDDCT (Document Type)		GLDCT / F0911
WDDCTI (Document Type)	Contract Billing.	Processing option for the Invoice Generation program (P52800)
	Service Billing.	Processing option for the Invoice Generation program (P48121)
WDDCTO (Order Type)	Contract Billing.	G5DCTO / F5212
WDDEJ (Date Entered)		Automatically assigned
WDDGJ (G/L Date)	This field is currently not active.	
WDDGL (G/L Date)		GLDGJ (G/L Date) / F0911
WDDI (Invoice Date)	GLICUT (Batch Type) field in the F0911 record contains V or W.	RPDGJ (G/L Date) / F0411
WDDOC (Document Number)		GLDOC / F0911
WDDOCM (Payment/ Item Number)	This field is currently not active.	
WDDOCO (Order Number)	Contract Billing.	G5DOCO / F5212
WDDOCZ (Order Number)		Automatically assigned with the Next Numbers facility (system 03. index 01)

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDDSVJ (Service/Tax Date)	Default. GLICUT (Batch Type) field in the F0911 record contains V or O. GLD0C, GLDCT, and GLKCO (Document Number, Type, and Company) fields in the F0911 record.	GLDSVJ / F0911
	GLICUT field contains V.	RPDSVJ / F0411
	GLDSVJ and RPDSVJ fields are blank. The F4111LC file exists.	ILTRDJ (Order Date) / F4111
WDDWNL (Download Flag)		Automatically assigned
WDEBAS (Date - Effectivity Basis)	WZEBAS field in the F48091 record contains 1.	GLDGL (G/L Date) / F0911
	WZEBAS field contains 2.	GLDSVJ (Service/Tax Date) / F0911
WDELGC (Eligibility Code)	Default. GLMCU, GLOBJ, and GLSUB (Business Unit, Object Account, and Subsidiary) fields in the F0911 record.	GMBILL (Billable – Y/N) / F0901
	Burden. J#MCU, J#OBJ, and J#SUB (Business Unit, Object Account, and Subsidiary) fields in the F0624 record.	GMBILL / F0901
	WZPRRR (Journal Generation Control) field in the F48091 record contains 3 or 4. GMBILL field in the F0901 record contains 1, 2, 3, or 4.	GMBILL / F0901
	WZPRRR field contains 3 or 4.	GMBILL / F0901
	WZPRRR field in the F48091 record does not contain 3 or 4.	WZPRRR / F48091

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDEQCG (Equipment Worked)	GLDCT (Document Type) field in the F0911 record contains TE.	GLASID (Serial Number) / F0911
	GLDCT field contains T5.	YTEQCG / F0618 or F06116
	GLDCT field does not contain TE, T2, T4, or T5.	Blank
WDEQWO (Equipment Worked On)	GLDCT field contains TE.	Blank
	GLDCT field contains T5.	YTEQWO / F0618 or F06116
	GLDCT field does not contain TE, T2, T4, or T5.	GLASID (Serial Number) / F0911
WDERC (Equipment Rate Code)	GLDCT field contains TE.	GLALTY (ID Type) / F0911
	GLDCT field contains T5.	YTERC / F0618 or F06116
	GLDCT field does not contain TE, T2, T4, or T5.	Blank
WDEXA (Explanation - Name A)	Default.	GLEXA / F0911
	GLDCT field contains T2, T4, or T5. YTAN8 (Address Number) field in either the F0618 or F06116 record.	ABALPH (Alpha Name) / F0101

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDEXR (Explanation - Remark)	WQEXR field in the F48096 record is blank. GLDCT field does not contain T2, T4, or T5.	GLEXR / F0911
	WQEXR field in the F48096 record is blank. GLDCT field contains T2, T4, or T5.	YTEXR / F0618 or F06116
	WQEXR field in the F48096 record is not blank.	WQEXR / F48096
	Burden. Of the following conditions, the one that the system finds first determines the source:	
	A) J#FRTY (Fringe Type) field in the F0624 record contains FB.	DRDL01 (Description) related to the fringe type / F0005
	B) J#PTAX (Tax Type) field in the F0624 record is not blank.	DRDL01 related to the tax type / F0005
	C) J#PDBA (PDBA Code) field in the F0624 record is greater than zero. YCDL01 field in the F069116 record is not blank. YCDL01 field in the F069116 record is blank.	YCDL01 / F069116 YCEXA (Explanation - Name A) / F069116
WDEXR1 (Tax Explanation Code)	Contract Billing.	G4EXR1 / F5201
	Service Billing.	WOEXR1 / F48127
WDFRTN (Foreign Retainage)	This field is currently not active.	
WDFTOL (Foreign Total Billed)	This field is currently not active.	
WDFY (Fiscal Year)		GLFY / F0911
WDGLC (G/L Offset)	This field is currently not active.	
WDHLD (Hold Code)		WDHLD

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDHMCU (Home Business Unit)	Default.	GLHMCU / F0911
	GLHMCU is blank. GLDCT (Document Type) field in the F0911 record does not contain T2, T4, or T5. GLMCU field is blank. GLASID (Serial Number) field in the F0911 record.	FAMCU (Business Unit) related to the serial number / F1201
	GLHMCU is blank. GLICUT (Batch Type) field in the F0911 record contains N. GLDOC, GLDCT, GLKCO, and GLDGL (Document Number, Type, Company, and G/L Date) fields in the F0911 record.	ILMCU / F4111
	GLHMCU is blank. GLICUT field contains either V or W. GLDOC, GLDCT, and GLKCO fields.	RPMCU / F0411
	GLHMCU is blank. GLICUT field contains 0. GLPO, GLPDCT, GLKCO, GLPSFX, and GLLNID (P.O. Number, Document Type, Company, Suffix, and Line Number) fields in the F0911 record.	PDMCU / F4311
	GLHMCU is blank. GLICUT field contains G. GLMCU in the F0911 record.	MCMCUS (Project Number) / F0006
	GLDCT contains T2, T4, or T5.	YTHMCU / F0618 or F06116
WDICU (Batch Number)		Automatically assigned with the Next Numbers facility (system 00. index 01)
WDICUA (Active Batch Number)		Automatically assigned with the Next Numbers facility (system 00. index 01)
WDICUJ (Revenue Batch Number)		Automatically assigned with the Next Numbers facility (system 00. index 01)

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDIDSC (Invoice Discount Ama)		Automatically assigned
WDIJST (Invoice Journal Status)		Automatically assigned
WDITAM (Invoice Tax)		Automatically calculated
WDITOL (Total Invoiced Amount)		Automatically calculated
WDITXA (Invoice Taxable Amount)		Automatically calculated
WDIVD (Invoice Date)		Automatically assigned
WDJBCD (Job Type)	GLDCT (Document Type) field in the F0911 record does not contain T2, T4, or T5.	GLJBCD / F0911
	GLDCT field contains T2, T4, or T5.	YTJBCD / F0618 or F06116
WDJBST (Job Step)	GLDCT field does not contain T2, T4, or T5.	GLJBST / F0911
	GLDCT field contains T2, T4, or T5.	YTJBST / F0618 or F06116
WDJELN (Journal Entry Line Number)		GLJELN / F0911
WDJMCU (Host Business Unit)	Default.	MCMCUS (Project Number) / F0006
	Contract Billing. GLDCT (Document Type) field in the F0911 record contains T2, T4, or T5. G4JMCU field in the F5201 record for the contract is not blank.	G4JMCU / F5201
	A contract does not exist.	MCMCUS / F0006
WDJOBN (Workstation ID)		Job name from the program status data structure
WDJRSP (Journal Status Code)		Automatically assigned
WDJRST (Journal Status Code)		Automatically assigned

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDJTAX (Journaled Tax)	WDEXR1 (Tax Explanation Code) field in the F4812 record contains C, E, or V.	
	WDEXR1 field does not contain C, E, or V.	
WDJTXF (Journaled Tax)	This field is currently not active.	
WDKCO (Document Company)		GLKCO / F0911
WDKCOI (Dcoument Company)	Contract Billing.	G5KCOO / F5212
WDKCOO (Oder Number Document Company)	Contract Billing.	G5KCOO / F5212
	Service Billing.	GLCO / F0911
WDLBAS (Date - Labor Effectivity Basis)	WZLBAS field in the F48091 record contains 1. GLDCT (Document Type) field in the F0911 record contains T2, T4, or T5.	YTDGL (G/L Date) / F0618 or F06116
	WZLBAS field contains either 2 or 3. GLDCT field contains T2, T4, or T5.	YTDWK (Work Date) / F0618 or F06116
	WZLBAS field contains 4. GLDCT field contains T2, T4, or T5.	YTPPED (Pay Period Ending Date) / F0618 or F06116
WDLNID (Line Number)	Contract Billing.	G5LNID / F5212
WDLSPM (Pament Completed)	This field is currently not active.	
WDLSSQ (Last Sequence)		Automatically assigned
WDLT (Ledger Type)		GLLT / F0911
WDMCU (Business Unit)	Default.	GLMCU / F0911
	Burden.	J#MCU / F0624
WDOBJ (Object Account)	Default.	GLOBJ / F0911
	Burden.	J#OBJ / F0624
WDODCT (Original Document Type)		GLODCT / F0911

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDODOC (Original Document Number)		GLODOC / F0911
WDOGNO (Original Line Number)		GLLNID (Line Number) / F0911
WDOKCO (Original Order Document)		GLOKCO / F0911
WDOPIM (Owner Pay Item)	Contract Billing.	G5OPIM / F5212
WDOPSQ (Operations Sequence)		GLOPSQ / F0911
WDOSFX (Original Pay Item)		GLOSFX / F0911
WDPCFG (Burden Flag)	Default.	Blank
	Burden records exist in F0624 table.	Automatically assigned 1
WDPCIM (Percentage)	Generation type is 1.	WQPERT (Percentage) / F48096
WDPCKO (Document Company)		GLPKCO (Purchase Order Document Company) / F0911
WDPCTN (Parent Contract Number)		G4PCTN / F5201
WDPCTT (Parent Contract Type)		G4PCTT / F5201
WDPDBA (PDBA Code)	Default.	Blank
	GLDCT (Document Type) field in the F0911 record contains T2, T4, or T5.	YTPDBA / F0618 or F06116
	Burden.	J#PDBA / F0624
WDPDCT (Purchase Order Document)		GLPDCT / F0911
WDPERT (Percentage)	Generation type is 2.	WQPERT (Percentage) / F48096
WDPID (Program ID)		Program name from the program status data structure
WDPKCO (Purchase Order Document Company)		GLPKCO / F0911

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDPMSQ (Payment Sequence Number)	This field is currently not active.	
WDPN (G/L Period Number)		GLPN / F0911
WDPO (P.O. Number)		GLPO / F0911
WDPRET (Percent Retainage)	This field is currently not active.	
WDPRIC (Unit Price)		Automatically calculated
WDPRSQ (Parent Sequence Number)		Automatically assigned
WDPRTF (Printed Flag)		Automatically assigned
WDPRTR (Transaction Number)	GLDCT (Document Type) field in the F0911 record contains T2, T4, or T5.	YTPRTR / F0618 or F06116
WDPSFX (Purchase Oder Suffix)		GLPSFX / F0911
WDPTAX (Tax Type)	Default.	Blank
	Burden.	J#PTAX / F0624
WDPTFG (Pass-Through Invoicing)	This field is currently not active.	
WDRDJ (Release Date)		WDRDJ
WDRGLC (Retention G/L Offset)	This field is currently not active.	
WDRP11 (Category Code 011)	WDHMCU (Home Business Unit) field in the F4812 record.	MCRP11 / F0006
WDRP12 (Category Code 012)	WDHMCU (Home Business Unit) field in the F4812 record.	MCRP12 / F0006
WDRTNG (Retainage)		Automatically calculated
WDRTPS (Retainage - Prior -)		Automatically calculated

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDR001 (Bill Item Code)	Default.	GMR001 for the account number in the source transaction / F0901
	Burden.	GMR001 for the burden account number / F0901
WDR002 (Category Code 002)	Default.	GMR002 for the account number in the source transaction / F0901
	Burden.	GMR002 for the burden account number / F0901
WDR003 (Location)	Default.	GMR003 for the account number in the source transaction / F0901
	Burden.	GMR003 for the burden account number / F0901
WDSBAR (Reason Code)		WDSBAR
WDSBL (Subledger)		GLSBL / F0911
WDSBLT (Subledger Type)		GLSBLT / F0911
WDSBL5 (Subledger)	This field is currently not active.	
WDSBL6 (Subledger)	This field is currently not active.	
WDSBSK (Summarization Key)		Automatically assigned
WDSBSQ (Sequence Number)		Automatically assigned
WDSBT5 (Subledger Type)	This field is currently not active.	
WDSBT6 (Subledger Type)	This field is currently not active.	
WDSCSQ (Secondary Sequence Number)		Automatically assigned
WDSFX (Pay Item)		Automatically assigned
WDSLNK (Split Link)		Automatically assigned

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDSUB (Subsidiary)	Default.	GLSUB / F0911
	Burden.	J#SUB / F0624
WDTBDT (Table Basis Date)	WZEBAS (Date - Effectivity Basis) field in the F48091 record contains 1.	GLDGL (G/L Date) / F0911
	WZEBAS field contains 2.	GLDSVJ (Service/Tax Date) / F0911

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDTCLS (Classification)	Components (provisional burdens)	Value is 0.
	GLDCT (Document Type) field in the F0911 record contains either T2 or T4.	Value is 1.
	Burden	Value is 2.
	GLDCT field contains TE.	Value is 3.
	GLDCT field does not contain T2, T4, or T5. A) Related records exist in both F0911 and F1201 tables. Both records have the same serial number (GLASID and FAASID, respectively). B) GLICUT (Batch Type) field in the F0911 record contains N. GLD0C, GLDCT, GLKCO, and GLDGL (Document Number, Type, Company, and G/L Date) fields in the F0911 record. C) GLICUT field contains either V or W. GLD0C, GLDCT, and GLKCO fields in the F0911 record. D) GLICUT field contains G. A related record exists in F0006 table.	Value is 3. Value is 4. Value is 5. Value is 6.
	None of the previous conditions are satisfied, and the GLPO (P.O. Number) field in the F0911 record is not blank.	Value is 5.

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDTOG (Taxable or Gross)	Contract Billing. F4812 record contains tax rate/area and explanation codes.	Value is 1.
	Service Billing. F48127 record contains tax rate/area and explanation codes.	Value is 1.
	Neither of the previous conditions exist.	Blank
WDTX (Purchasing Taxable -)	Contract Billing. F4812 record contains tax rate/area and explanation codes.	Value is Y.
	Service Billing. F48127 record contains tax rate/area and explanation codes.	Value is Y.
	Neither of the previous conditions exist.	Value is N.
WDTXA1 (Tax Rate/ Areas)	Contract Billing.	G4TXA1 / F5201
	Service Billing.	WOTXA1 / F48127
WDTYKY (Key Type)	This field is currently not active.	
WDU (Units)	Default.	GLU / F0911
	GLDCT (Document Type) field in the F0911 record contains either T2 or T4.	YTPHRW (Hours Worked) / F0618 or F06116
	GLDCT field contains T5.	YTEQHR (Equipment Hours) / F0618 or F06116
WDUM (Unit of Measure)	Default.	GLUM / F0911
	GLDCT field contains T2, T4, or T5.	Automatically assigned HR
WDUPMJ (Date Updated)		Automatically assigned

F4812 Data Item	Conditions and Retrieval Information	Data Item / Source Table
WDUPMT (Time Last Updated)		Automatically assigned
WDUSER (User ID)		Automatically assigned
WDVINV (Invoice Number)		GLVINV / F0911
WDVOID (Void - V)		Automatically assigned
WDWR01 (Phase)		GLWR01 / F0911
WDWR07 (Service Type)	GLSBL (Subledger) field in the F0911 record is blank. GLSBLT (Subledger type) field contains W.	WAWR07 / F4801

Appendix F — Functional Servers

Several J.D. Edwards programs access functional servers. The purpose of functional servers is to provide a central location for standard business rules about entering documents, such as vouchers, invoices, and journal entries. These business rules establish the following:

- Data dictionary default values
- Field edits and valid values
- Error processing
- Relationships between fields or applications

The advantages of a functional server are:

- It reduces maintenance of entry programs because edit rules reside in one central location.
- You can standardize documents across all applications because you create them using the same business rules.
- Generally, the user interface (appearance and interaction) of a form is now separate from how a program works.

The steps for setting up business rules for an entry program are:

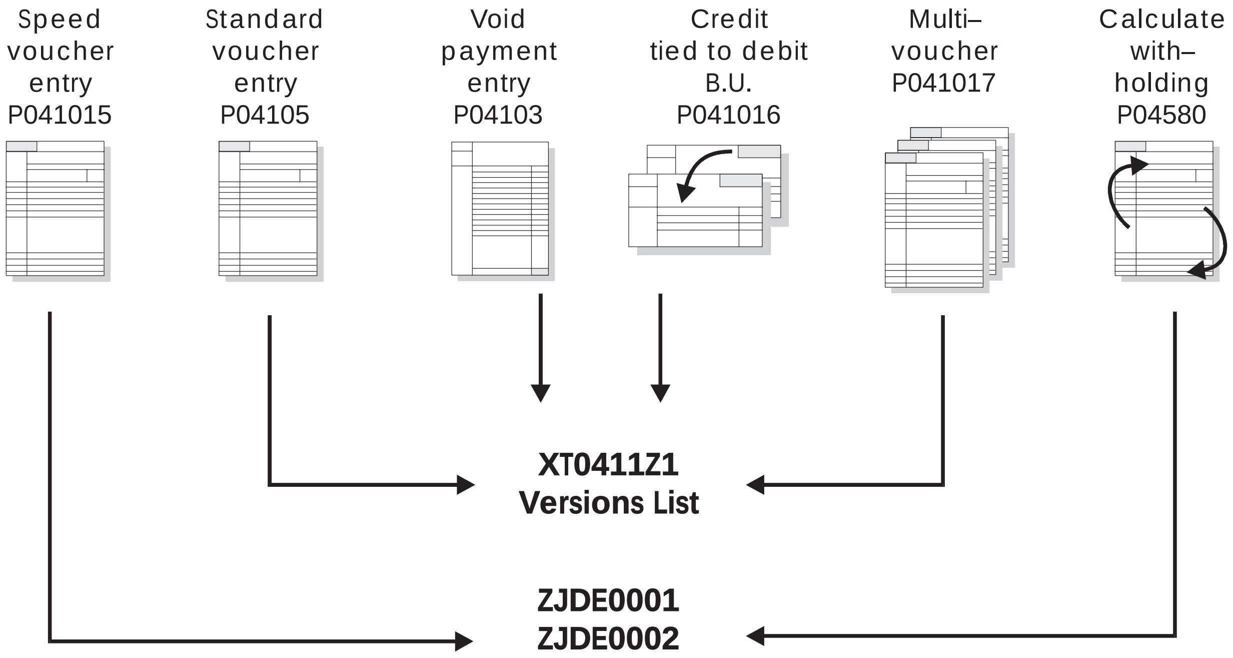
1. Create a DREAM Writer version for a specific functional server program (for example, XT0411Z1 for voucher entry).
2. Set the processing options within the version according to your company requirements.
3. Specify the version you want the entry program to use in the processing options for that entry program.

You can have all your entry programs use the same DREAM Writer version (and thus, use the same rules) or you can set up different DREAM Writer versions. J.D. Edwards provides DREAM Writer version ZJDE0001 as the default functional server version for your entry programs.

Only the person responsible for system-wide setup should make changes to the functional server version. For more information about how to set up DREAM Writer versions, see the *Technical Foundation Guide.*

Example: Voucher Processing Functional Server

The following graphic shows the programs that use the voucher processing functional server. J.D. Edwards provides two demo versions of the functional server, ZJDE0001 and ZJDE0002.


Speed voucher entry P041015
Standard voucher entry P04105
Void payment entry P04103
Credit tied to debit B.U. P041016
Multi–voucher P041017
Calculate with–holding P04580
XT0411Z1 Versions List
ZJDE0001
ZJDE0002

Glossary

Glossary

This glossary defines terms in the context of your use of J.D. Edwards systems and the accompanying combo guide.

1099 form. An income tax reporting form required by the U.S. government for many types of payments made to persons and non-corporate entities.

AA ledger. The ledger type used for transactions in domestic amounts (actual amounts).

AAI. Automatic accounting instruction. A code that points to an account in the chart of accounts. AAIs define rules for programs that automatically generate journal entries. This includes interfaces between Accounts Payable, Accounts Receivable, and Financial Reporting and the General Accounting system. Each system that interfaces with the General Accounting system has AAIs. For example, AAIs can direct the Post to General Ledger program to post a debit to a certain expense account and an automatic credit to a certain accounts payable account.

A/P Ledger method. One of the two methods J.D. Edwards provides to process 1099 tax reporting forms. Using this method, you produce 1099s from data stored in the A/P Ledger table (F0411). Also called the *expedient method* and the *fast path method.*

AZ ledger. The ledger type used for cash basis accounting.

access. A way to get to information or functions provided by the system through menus, forms, and reports.

account status. The state or condition of a customer's accounts receivable transaction account.

accounting period. One of the divisions of a fiscal year. A fiscal year can contain 12 to 14 accounting periods, or more rarely, 52 periods. There can also be an additional period for year-end adjustments, and another additional period for audit adjustments.

adjustment. A payment and receipt application method used to modify an amount such as a minor write-off or outstanding freight charges and disputed taxes.

alphabetic character. A letter or other symbol from the keyboard (such as *, &, and #) that represents data. Contrast with *numeric character.*

alphanumeric character. A combination of letters, numbers, and other symbols (such as *, &, and #) that represents data.

approver number. The user ID of the person who approves vouchers for payment.

"as of" report. A report used to view the A/R Ledger and A/P Ledger tables in summary or detail for a specific point in time.

audit adjustments. The adjustments you make to G/L accounts following an audit. You generally enter these adjustments annually, following the close of the fiscal year.

audit trail. The detailed, verifiable history of a processed transaction. The history consists of the original documents, transaction entries, and posting of records, and usually concludes with a report.

backup copy. A copy of original data preserved on a magnetic tape or diskette as protection against destruction or loss.

balance forward. A receipt application method in which the receipt is applied to the oldest invoices in chronological order according to the net due date.

Bank Automated Clearing System. (BACS). An electronic process used in the United Kingdom.

bank tape (lock box) processing. The receipt of payments directly from a customer's bank via customer tapes for automatic receipt application.

batch. A group of like records or transactions that the computer treats as a single unit during processing. For identification purposes, the system usually assigns each batch a unique identifier, known as a "batch number."

batch control. The verification of the number of transactions and the total amount in each batch entered into the system.

batch header. The information the computer uses as identification and control for a group of transactions or records in a batch.

batch input. A group of transactions loaded from an external source.

batch input table. An external table that holds data being loaded into the system.

batch job. A task or group of tasks you submit for processing that the system treats as a single unit during processing, for example, printing reports and purging tables. The computer performs these tasks with little or no user interaction.

batch processing. A method by which the computer selects jobs from the job queue, processes them, and writes output to the out queue. Contrast with *interactive processing*.

batch receipts entry. An alternative method (such as an optical reader or magnetic scanner) to load receipts into the J.D. Edwards Accounts Receivable system.

batch status. A code that indicates the posting status of a batch. For example, A indicates approved for posting, P indicates posting in-process, and D indicates posted.

batch type. A code that designates which J.D. Edwards system the associated transactions pertain to, thus controlling what records are selected for processing. For example, in the Post General Journal process, only unposted transaction batches with a batch type of G for General Accounting are selected for posting.

Boolean logic operand. In J.D. Edwards DREAM Writer, the parameter of the Relationship field. The Boolean logic operand tells the system to perform a comparison between certain records or parameters. Available operands are:

EQ = Equal To
LT = Less Than
LE = Less Than or Equal To
GT = Greater Than
GE = Greater Than or Equal To
NE = Not Equal To
NL = Not Less Than
NG = Not Greater Than

broadcast message. An electronic mail message that you can send to a number of recipients.

business unit. A division of your business organization that requires a balance sheet or P&L. Also called a *cost center*.

calculation method. When you restate currency, you can choose among three calculation methods: (1) period calculations, used for P&L accounts, (2) balance calculations, used for balance accounts, and (3) historical rate, used for fixed assets.

cash basis accounting. A method of accounting that recognizes revenue and expenses when monies are received and paid.

category code. In user defined codes, a temporary title for an undefined category. For example, if you are adding a code that designates different sales regions, you could change *category code 4* to *Sales Region*, and define E (East), W (West), N (North), and S (South) as the valid codes. Category codes were formerly known as *reporting codes*.

character. Any letter, number, or other symbol that a computer can read, write, and store.

chargeback. A receipt application method used to generate an invoice for a disputed amount or for the difference of an unpaid receipt.

check. See *payment.*

command. A character, word, phrase, or combination of keys you use to tell the computer to perform a defined activity.

consolidations. A method of grouping or combining information for several companies or business units. Used for reports or inquiries.

consolidation reporting. The process of combining financial statements for companies or business units so that the different entities can be represented by a single balance sheet or income statement. If the different entities operate in different currencies, consolidation reporting may be complicated by the need for currency restatement. See also *currency restatement.*

constants. Parameters or codes that rarely change. The computer uses constants to standardize information processing by an associated system. Some examples of constants are allowing or disallowing out-of-balance postings and having the system perform currency conversions on all amounts. After you set constants such as these, the system follows these rules until you change the constants.

contra/clearing account. A G/L account used by the system to offset (balance) journal entries. For example, you can use a contra/clearing account to balance the entries created by allocations.

cost allocations. A procedure used to allocate or distribute expenses, budgets, adjustments, and so on among business units, based on actual numbers.

cost center. See *business unit.*

credit message. A code used to display information about a customer's account status, such as "Over Credit Limit."

credit note reimbursement. A system generated form to reclassify a credit memo or unapplied cash record from the Accounts Receivable system to an open voucher in the Accounts Payable system.

cursor. The blinking underscore or rectangle on your form that indicates where the next keystroke will appear.

currency code. A code used to assign a currency to a customer, supplier, bank account, company, or ledger type.

currency restatement. The process of converting amounts from one currency into another currency, generally for reporting purposes. It can be used, for example, when many currencies must be restated into a single currency for consolidated reporting.

cursor sensitive help. J.D. Edwards online help function, which allows you to view a description of a field, an explanation of its purpose, and, when applicable, a list of the valid codes you can enter. To access this information, move the cursor to the field and press F1.

customer. An individual or organization that purchases goods and services.

customer ledger. The record of transactions between your company and a particular customer.

customer payment. See *receipt*.

data. Numbers, letters, or symbols representing facts, definitions, conditions, and situations, that a computer can read, write, and store.

database. A continuously updated collection of all information a system uses and stores. Databases make it possible to create, store, index, and cross-reference information online.

data dictionary. A database table consisting of the definitions, structures, and guidelines for the usage of fields, messages, and help text. The data dictionary table does not contain the actual data itself. Also known as a *glossary.*

data types. Supplemental information, attached to a company or business unit. Narrative type contains free-form text. Code type contains dates, amounts, and so on.

date pattern. A period of time set for each period in standard and 52-period accounting.

debit statement. A list of debit balances.

default. A code, number, or parameter the system supplies when you do not enter one. For example, if an input field's default is N and you do not enter something in that field, the system supplies an N.

descriptive title. See *user defined code*.

detail. The individual pieces of information and data that make up a record or transaction. Contrast with *summary*.

display. To cause the computer to show information on a form.

display field. A field of information on a form that contains a system-provided code or parameter that you cannot change. Contrast with *input field.*

display sequence. A number that the system uses to reorder a group of records on the form.

document number. A number that identifies the original document, such as voucher, invoice, unapplied receipt, journal entry, and so on.

draft. A promise to pay a debt. Drafts are legal payment instruments in certain European countries.

DREAM Writer. Data Record Extraction And Management Writer. A flexible data manipulator and cataloging tool. You use this tool to select and sequence the data that is to appear on a programmed report.

DSO. Days Sales Outstanding.

edit. (1) To make changes to a table by adding, changing, or removing information. (2) The program function of highlighting fields into which you have entered inadequate or incorrect data.

effective date. The date upon which an address, item, transaction, or table becomes effective. Examples include the date a change in address becomes effective or the date a tax rate becomes effective. In the Address Book system, effective dates allow you to track past and future addresses for suppliers and customers.

Electronic Data Interchange . (EDI). A method of transferring business documents, such as purchase orders, invoices, and shipping notices, between computers of independent organizations electronically.

Electronic Funds Transfer. (EFT). A method of transferring funds from one company's bank account to that of another company.

execute. See *run*.

exit. (1) To interrupt or leave a computer program by pressing a specific key or a sequence of keys. (2) An option or function key displayed on a form that allows you to access another form.

expedient method. See *A/P Ledger method.*

facility. A collection of computer language statements or programs that provides a specialized function throughout a system or throughout all integrated systems. Examples include DREAM Writer and FASTR.

fast path method. See *A/P Ledger method.*

FASTR. Financial Analysis Spreadsheet Tool and Report Writer. A report writer that allows you to design your own report specifications using the general ledger database.

field. (1) An area on a form that represents a particular type of information, such as name, document type, or amount. Fields that you can enter data into are designated with underscores. See *input field* and *display field.* (2) A defined area within a record that contains a specific piece of information. For example, a supplier record consists of the fields Supplier Name, Address, and Telephone Number. The Supplier Name field contains just the name of the supplier.

52 period accounting. A method of accounting that uses each week as a separate accounting period.

finance charge. An amount charged to a customer based on a percentage assessed on an unpaid invoice exceeding the grace period.

financial reporting date. The user defined date used by the system when you run financial reports.

fiscal year. A company's tax reporting year. Retained earnings are generally calculated at the end of a fiscal year. It is often different than a calendar year. For example, a fiscal year may be the period October 1 through September 30.

flash message. A code that you define to describe the credit status of a customer. Examples include over credit limit, COD only, bad credit risk, and requires a purchase order.

fold area. An area of a form, accessed by pressing F4, that displays additional information associated with the records or data items displayed on the form.

form. A specific set of fields and information. Also known as a *screen*.

function. A separate feature within a facility that allows you to perform a specific task, for example, the field help function.

function key. A key you press to perform a system operation or action. For example, you press F4 to have the system display the fold area of a form.

functional server. A central system location for standard business rules about entering documents such as vouchers, invoices, and journal entries. Functional servers ensure uniform processing according to guidelines you establish.

general ledger receipt. (G type) A receipt that is directly applied to a G/L account without being applied to a specific invoice. These are typically non-A/R receipts. For example, an insurance reimbursement.

glossary. See *data dictionary.*

G/L method. One of the two methods J.D. Edwards provides to process 1099 tax reporting forms. Using this method, you produce 1099s from data stored in the Account Ledger table (F0911). Also called the *tough/right method.*

G/L offset. An account used by the post program to create automatic offset entries.

G/L posted code. A system code that indicates the status of individual documents. For example, P indicates that a voucher or an invoice has been posted.

Goods Services and Taxes. (GST). A tax assessed in Canada.

hard copy. A presentation of computer information printed on paper. Synonymous with *printout*.

hash total. A sum produced by numbers with different meanings. For example, adding amounts in different currencies.

header. Information at the beginning of a table. This information is used to identify or provide control information for the group of records that follows.

help instructions. Online documentation or explanations of fields that you access by pressing the Help key or by pressing F1 with your cursor in a particular field.

helps. See *help instructions*.

hidden selections. Menu selections you cannot see until you enter HS in a menu's Selection field. Although you cannot see these selections, they are available from any menu. They include such items as Display Submitted Jobs (33), Display User Job Queue (42), and Display User Print Queue (43). The Hidden Selections window displays three categories of selections: user tools, operator tools, and programmer tools.

indexed allocations. A procedure used to allocate or distribute expenses, budgets, adjustments, and so on, among business units, based on a fixed percentage.

input. Information you enter in the input fields on a form or that the computer enters from other programs, then edits and stores in tables.

input field. An area on a form, where you type data, values, or characters. A field represents a specific type of information, such as name, document type, or amount. Contrast with *display field*.

install system code. The code that identifies a J.D. Edwards system. Examples are 01 for the Address Book system, 04 for the Accounts Payable system, and 09 for the General Accounting system.

integrity test. A process used to supplement a company's internal balancing procedures by locating and reporting balancing problems and data inconsistencies.

interactive processing. A job the computer performs in response to commands you enter from a terminal. During interactive processing, you are in direct communication with the computer, and it might prompt you for additional information during the processing of your request. See *online*. Contrast with *batch processing*.

interest invoice. An invoice calculated on paid invoices whose payment was received after the specified due dates.

interest rate computation code. A code used to define the rates and effective dates used for calculating interest charges.

interface. A link between two or more J.D. Edwards systems that allows the systems to send information to and receive information from one another.

invalid account. A G/L account that has not been set up in the Account Master table (F0901).

invoice match. A receipt application method where the receipt is applied to specific invoices. A discount can be allowed or disallowed using invoice match.

jargon. A J.D. Edwards term for system-specific help text. You base your help text on a specific reporting code you designate in the Data Dictionary Glossary. You can display this text as part of online help.

job. A single identifiable set of processing actions you tell the computer to perform. You start jobs by choosing menu selections, entering commands, or pressing designated function keys. An example of a computer job is payment printing in the Accounts Payable system.

job queue. A form that lists the batch jobs you and others have told the computer to process. When the computer completes a job, the system removes the job's identifier from the list.

justify. To shift information you enter in an input field to the right or left side of the field. Many of the facilities within J.D. Edwards systems justify information. The system does this only after you press Enter.

key field. A field common to each record in a table. The system uses the key field designated by the program to organize and retrieve information from the table.

language preference. An address book code used to specify a language to use when displaying information.

leading zeros. A series of zeros that certain facilities in J.D. Edwards systems place in front of a value you enter. This normally occurs when you enter a value that is smaller than the specified length of the field. For example, if you enter 4567 in a field that accommodates eight numbers, the facility places four zeros in front of the four numbers you enter. The result appears as 00004567.

ledger type. A ledger used by the system for a particular purpose. For example, all transactions are recorded in the AA (actual amounts) ledger type in their domestic currency. The same transactions may also be stored in the CA (foreign currency) ledger type. Also known as a *ledger*.

level of detail. (1) The degree of difficulty of a menu in J.D. Edwards software. The levels of detail for menus are as follows:

A=Major Product Directories
B=Product Groups
1=Basic Operations
2=Intermediate Operations
3=Advanced Operations
4=Computer Operations
5=Programmers
6=Advanced Programmers

Also known as *menu levels.* (2) The degree to which account information in the General Accounting system is summarized. The highest level of detail is 1 (least detailed) and the lowest level of detail is 9 (most detailed).

logged vouchers. See *voucher logging.*

mail distribution list. A list of people to whom you send electronic mail messages. This list enables you to quickly send notices, instructions, or requests to a predefined group of people.

master table. A computer table that a system uses to store data and information which is permanent and necessary to the system's operation. Master tables might contain data or information such as paid tax amounts and supplier names and addresses.

matching document. A document associated with an original document to complete or change a transaction. For example, a receipt is the matching document of an invoice.

menu. A form that displays numbered selections. Each of these selections represents a program. To access a selection from a menu, type the selection number and then press Enter.

menu levels. See *level of detail.*

menu masking. A security feature of J.D. Edwards systems that lets you prevent individual users from accessing specified menus or menu selections. The system does not display the menus or menu selections to unauthorized users.

menu message. Text that appears on a form after you make a menu selection. It displays a warning, caution, or information about the requested selection.

mode. A code that specifies whether amounts are in the domestic currency of the company the invoices or vouchers are associated with or in the foreign currency of the transaction.

monetary account. (1) In common usage, any funds account. (2) In J.D. Edwards more specific usage, a bank account limited to transactions in a single currency.

multiple AAI revisions. The process of revising several automatic accounting instructions at one time.

next number facility. A J.D. Edwards software facility you use to control the automatic numbering of such items as new G/L accounts, vouchers, and addresses. It lets you specify your desired numbering system and provides a method to increment numbers to reduce transposition and typing errors.

next status. The next step in the payment process for payment control groups. The next status can be either WRT (write) or UPD (update).

NSF receipt. Non-sufficient funds. A way to designate that a customer's bank account does not have sufficient funds available to pay the receipt. Designating a receipt as NSF reverses (deletes) the receipt and reopens the amount of the associated invoice.

numeric character. Represents data using the numbers 0 through 9. Contrast with *alphabetic character* and *alphanumeric character*.

offline. Computer functions that are not under the continuous control of the system. For example, if you run a certain job on a personal computer and then transfer the results to a host computer, that job is considered an offline function. Contrast with *online*.

online. Computer functions over which the system has continuous control. Each time you work with a J.D. Edwards system-provided form, you are online with the system. Contrast with *offline*. See *interactive processing*.

online information. Information the system retrieves, usually at your request, and immediately displays on the form. This information includes items such as database information, documentation, and messages.

operand. See *Boolean logic operand.*

option. A numbered selection from a J.D. Edwards form that performs a particular function or task. To select an option, you enter its number in the Option field next to the item you want the function performed on. When available, for example, option 4 allows you to return to a prior form with a value from the current form.

original document. The document that initiates a transaction in the system.

output. Information the computer transfers from internal storage to an external device, such as a printer or a computer form.

output queue. A form that lists the spooled tables (reports) you have told the computer to write to an output device, such as a printer. After the computer writes a table, the system removes that table's identifier from the online list.

override. The process of entering a code or parameter other than the one provided by the system. Many J.D. Edwards systems offer forms that provide default field values when they appear. By typing a new value over the default code, you can *override* the default. See *default*.

P&L. Profit and loss statement.

parameter. A number, code, or character string you specify in association with a command or program. The computer uses parameters as additional input or to control the actions of the command or program.

parent/child relationship. A hierarchical relationship among your addresses (suppliers, customers, or prospects). One address is the parent and one or more subordinate addresses are children for that parent. This relationship is helpful, for example, when you want to send billing for field offices (subsidiary companies) to the corporate headquarters.

password. A unique group of characters that you enter when you sign on to the system that the computer uses to identify you as a valid user.

pay item. A line item in a voucher or an invoice.

pay status. The current condition of the payment or receipt, such as paid or payment-in-process.

payment. The system creates payments when you use the Create Payment Groups program. It is important to understand that payments can exist before you write them.

payment group. A system- generated group of payments with similar information (such as bank account). The system processes all payments in a payment group at the same time.

payment instrument. The method of payment, such as check, draft, EFT, and so on.

payment stub. The printed record of a payment.

payment terms. The amount of time allowed to pay a voucher or an invoice, with or without a discount.

posted code. A code that indicates whether a transaction or batch has been posted.

pre-note code. A code that indicates whether a supplier is set up or in the process of being set up for electronic funds transfer (EFT).

printout. A presentation of computer information printed on paper. Synonymous with *hard copy*.

print queue. An online list (form) of written tables that you have told the computer to print. Once the computer prints the table, the system removes the table's identifier from the online list. See *output queue*.

processing options. A feature of the J.D. Edwards DREAM Writer that allows you to supply parameters to direct the functions of a program. For example, processing options allow you to specify defaults for certain form displays, control the format in which information gets printed on reports, change the way a form displays information, and enter "as of" dates.

program. A collection of computer statements that tells the computer to perform a specific task or group of tasks.

program specific help text. Glossary text that describes the function of a field within the context of the program.

prompt. (1) A reminder or request for information displayed by the system. When a prompt appears, you must respond in order to proceed. (2) A list of codes or parameters or a request for information provided by the system as a reminder of the type of information you should enter or action you should take.

pseudo company. A fictitious company used in consolidations.

PST. Provincial sales tax. A tax assessed by individual provinces in Canada.

purge. The process of removing records or data from a system table.

rate type. For currency exchange transactions, the rate type distinguishes different types of exchange rates. For example, you may use both period average and period-end rates, distinguishing them by rate type.

realized gain/loss. Currency gains and losses are incurred due to fluctuating currency exchange rates. A gain/loss is realized when you pay the invoice or voucher. See also *unrealized gain/loss.*

receipt. The payment your company receives from a customer.

record. A collection of related, consecutive fields of data the system treats as a single unit of information. For example, a supplier record consists of information such as the supplier's name, address, and telephone number.

recurring frequency. The cycle in which a recurring voucher or invoice becomes due for payment, for example, monthly or quarterly.

recurring invoice. An invoice that becomes due for payment on a regular cycle, such as a lease payment.

recurring voucher. A voucher that comes due for payment on a regular cycle, such as a lease payment.

recycle. A process used to create the next cycle (for example, next month's) of recurring invoices or vouchers.

refresh. A process used to update a customer's credit and collection information, such as Credit Analysis Refresh.

reporting code. See *category code.*

reset. The process of changing a payment from a completed status to a next status of WRT (write). This allows you to correct or reprint payments.

reverse. A method used to automatically create an opposite entry at the time the original transaction is posted to the general ledger.

reverse image. Form text that displays in the opposite color combination of characters and background from what the form typically displays (for example, black on green instead of green on black).

routing/transit number. A number that uniquely identifies U.S. banks. This number is assigned by the Federal Reserve Board and consists of two parts: a routing number and a transit number.

run. To cause the computer to perform a routine, process a batch of transactions, or carry out computer program instructions.

scroll. To use the roll keys to move form information up or down a form at a time. When you press the Rollup key, for instance, the system replaces the currently displayed text with the next form of text if more text is available.

selection. Found on J.D. Edwards menus, selections represent functions that you can access from a given menu. To make a selection, you type its associated number in the Selection field and press Enter.

self-reconciling item. An item that does not require reconciliation.

sequence review ID. Defines the order in which payments print in a payment group. Each sequence review ID has its own data sequence and a code that indicates whether the system sorts each data item in ascending or descending order.

single AAI revision. The process of revising one automatic accounting instruction at a time.

soft coding. A J.D. Edwards term that describes an entire group of features that allows you to customize and adapt J.D. Edwards software to your business environment. These features lessen the need for you to use computer programmers when your data processing needs change.

software. The operating system and application programs that tell the computer how and what tasks to perform.

special character. Representation of data in symbols that are neither letters nor numbers. Some examples are *, &, and #.

special period/year. The date used to determine the *source* balances for an allocation.

speed code. A user defined code that represents a G/L account number. Speed codes can be used to simplify data entry by making G/L accounts easier to remember

spool. The function by which the system puts generated output into a storage area to await printing and processing.

spooled table. A holding table for output data waiting to be printed or input data waiting to be processed.

spread. A payables and receipt application method used to distribute and apply an unapplied voucher, receipt, debit memo, or credit memo to open vouchers or invoices.

Standard Industry Classification (SIC). A code the U.S. government developed to classify U.S. companies as to their economic activity. Examples include agricultural services (0100), wholesale trade (5000), and services (7000).

stop date. The date an allocation becomes inactive.

structure type. A code that identifies a type of organization structure with its own hierarchy in the Address Book system.

subtable. An area on the form where the system displays detailed information related to the header information at the top of the form. Subtables might contain more information than the form can display in the subtable area. If so, use the roll keys to display the next form of information. See *scroll*.

submit. See *run*.

supplemental data. Additional information about a business unit not contained in the master tables.

supplier. An individual or organization that provides goods and services. Also called a *vendor*.

supplier ledger. The record of transactions between your company and a particular supplier.

supplier payment. The payment your company makes to a supplier.

summary. The presentation of data or information in a cumulative or totaled manner in which most of the details have been removed. Many of the J.D. Edwards systems offer forms and reports that are summaries of the information stored in certain tables.

system. A collection of computer programs that allows you to perform specific business tasks. Some examples of applications are Accounts Payable, Inventory, and Order Processing. Synonymous with *application.*

table. A collection of related data records organized for a specific use and electronically stored by the computer.

three-tier processing. The task of entering, approving, and posting batches of transactions.

third party software. Programs provided to J.D. Edwards clients by companies other than J.D. Edwards.

TI code. A code that identifies the type of receipt application, which directly affects the way the receipt is processed.

time log. An electronic mail method for tracking employees' time in the office. The time log lists when employees sign in, sign out, and employee remarks about their whereabouts and activities.

tolerance range. The amount by which taxes entered manually can vary from the system-calculated tax.

tough/right method. See *G/L method.*

transaction code. A code that distinguishes the type of transaction on a bank statement.

transit account. A G/L account used to hold funds until they can be allocated to the correct account.

translation adjustment account. An optional G/L account used in currency restatement to record the total adjustments at a company level.

unapplied receipt. A receipt that is applied to a customer's account balance instead of being matched to an invoice or group of invoices.

undo. To remove the payments from the payment run so that they no longer appear on any A/P payment review form. The system clears them from the worktable and moves vouchers from a pay status of # (payment in-process) to pay status A (approved).

unrealized gain/loss. Currency gains and losses are incurred due to fluctuating currency exchange rates. A gain/loss is unrealized until you pay the invoice or voucher. See also *realized gain/loss.*

update. For example, to add new payments and void payments to the A/P Ledger (F0411), Accounts Payable Matching Document (F0413), and Accounts Payable Matching Document Detail (F0414) tables. The system updates these tables during payment processing and prints the payment register.

user defined code. The individual codes you create and define within a user defined code type. Code types are used by programs to edit data and allow only defined codes. These codes might consist of a single character or a set of characters that represents a word, phrase, or definition. These characters can be alphabetic, alphanumeric, or numeric. For example, in the user defined code type list ST (Search Type), a few codes are C for Customers, E for Employees, and V for Suppliers.

user defined code (type). The identifier for a list of codes with a meaning you define for the system (for example, ST for the Search Type codes list in Address Book). J.D. Edwards systems provide a number of these lists and allow you to create and define lists of your own.

user identification (user ID). The unique name you enter when you sign on to a J.D. Edwards system to identify yourself to the system. This ID can be up to 10 characters long and can consist of alphabetic, alphanumeric, and numeric characters.

valid codes. The allowed codes, amounts, or types of data that you can enter in a specific input field. The system checks, or edits, user defined code fields for accuracy against the list of valid codes.

variable numerator allocations. A procedure used to allocate or distribute expenses, budgets, adjustments, and so on, among business units, based on a variable.

VAT. Value-added tax. A recoverable tax assessed in some countries.

vendor. See *supplier.*

video. The display of information on your monitor form. Normally referred to as the *form*.

vocabulary overrides. A J.D. Edwards facility that lets you to override field, row, or column title text on a form-by-form or report-by-report basis.

void. A method used to create a reversing entry of the original transaction. Voiding a transaction leaves an audit trail.

voucher logging. The process of entering vouchers without distributing amounts to specific G/L accounts. The system initially distributes the total amount of each voucher to a G/L suspense account, where it is held until you redistribute it to the correct G/L account or accounts.

voucher match. A payment application method where the payment is applied to specific vouchers.

who's who. A term that J.D. Edwards uses to identify contacts at a particular company. Examples include billing, collections, and sales personnel.

window. A software feature that allows a part of your form to function as if it were a form in itself. Windows serve a dedicated purpose within a facility, such as searching for a specific valid code for a field.

word search stop word. A common word that the query search in the Address Book system ignores. Examples include street or avenue.

worked. A code used to indicate whether a customer's account has been reviewed and updated. For example, you "work" an account by changing a customer's credit limit or customers who are eligible for a credit review.

write-off. A receipt application method where the receipt is applied to the invoice and the difference is written off. You can "write-off" both overpayments and underpayments.

write payment. A step in processing payments. Writing payments includes printing checks, drafts, and creating a bank tape table.

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